SOLAR PARKS IN THE CUYO REGION

Document prepared by Coralia Environmental for Genneia

Name of the project	Solar Parks in the Cuyo Region
Project holder	GENNEIA S.A.
Account holder	GENNEIA S.A.
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Other project participants	Coraliae S.R.L. (Coralia Environmental)
Version	5.0

Date	23/06/2025
Project type	Activities in the energy sector - Non-conventional renewable energy sources – Solar Energy project
Grouped project	Yes
Applied Methodology (ies)	ACM0002 - Grid-connected electricity generation from renewable sources – Version 22.0
Project location (City, Region, Country)	Cuyo region Province of San Juan & Province of Mendoza Argentina
Starting date	30/03/2023
Quantification period of GHG emissions reduction	7 years (30/03/2023 to 29/03/2030)
Estimated total and average annual GHG emission reduction/removals amount	Total amount of GHG emissions reductions (during the quantification period): **902,914** tCO_2e Estimated average annual amount of GHG emission reductions: **112,864** tCO_2e/year
Sustainable Development Goals	 **SDG 7:** Affordable and clean energy **SDG 8:** Decent work and economic growth **SDG 12:** Responsible consumption and production **SDG 13:** Climate action **SDG 15:** Life on land
Special category, related to co-benefits	Not Applicable

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1 Project type and eligibility

1.1 Scope in the BCR Standard

The project is eligible under the scope of the BCR Standard by meeting one the following conditions.

The scope of the BCR Standard is limited to:	
The following greenhouse gases, included in the Kyoto Protocol: Carbon Dioxide (CO_2), Methane (CH_4) and Nitrous Oxide (N_2O).	**X**
GHG projects using a methodology developed or approved by BioCarbon, applicable to GHG removal activities and REDD+ activities (AFOLU Sector).	
Quantifiable GHG emission reductions and/or removals generated by the implementation of GHG removal activities and/or REDD+ activities (AFOLU Sector).	
GHG projects using a methodology developed or approved by BioCarbon, applicable to activities in the energy, transportation and waste sectors.	**X**
Quantifiable GHG emission reductions generated by the implementation of activities in the energy, transportation and waste sectors.	**X**

Table 1: Scope of the BCR Standard.

All instances of the grouped project will reduce CO_2 emissions by displacing a portion of the energy supplied to the national interconnected grid (SADI) with renewable energy, from the generation of solar energy in different solar parks located in the Cuyo region in Argentina.

The solar energy generated by all instances of the project represents a Non-Conventional Renewable Energy Source (NCRE Source) that consists of electromagnetic radiation from the sun. This type of NCRE Source is covered in the Large-scale consolidated methodology ACM0002 v22.0 for Grid-connected electricity generation from renewable sources of the Clean Development Mechanism (CDM) of the United Nations Framework Convention on Climate Change (UNFCCC). This methodology is approved by the BioCarbon Standard (BCR Standard) and falls under the activities in the energy sector as indicated in the corresponding BCR Standard guide (BCR Energy Sector Guide v1.1).

All instances of the grouped project are following the requirements established in the national legal frameworks, as well as the rules and procedures established by the BCR Standard.

1.2 Project type

Activities in the AFOLU sector, other than REDD+	
REDD+ Activities	
Activities in the energy sector	**X**
Activities in the transportation sector	
Activities related to Handling and disposing of waste	

Table 2: Project Type.

1.3 Project scale

According to the CDM, methodologies for large-scale project activities can be used for project activities of any size, whereas small-scale methodologies can only be applied if the project activity is within certain limits.

Small-scale methodologies and projects are grouped into three different types:

- Type I: Renewable energy project activities with a maximum output capacity of 15 MW (or an appropriate equivalent);
- Type II: Energy efficiency improvement project activities which reduce energy consumption, on the supply and/or demand side, with a maximum output (i.e. maximum savings) of 60 GWh per year (or an appropriate equivalent);
- Type III: Other project activities that result in emission reductions of less than or equal to 60 kt CO_2 equivalent per year.

Neither of the three types of small-scale projects apply to this grouped project since:

- All instances of the grouped project involve renewable energy project activities with an output capacity greater than 15 MW;
- Instances of the grouped project do not involve energy efficiency improvement project activities which reduce energy consumption, on the supply and/or demand side, with a maximum saving of 60 GWh per year;
- The grouped project involves renewable-energy activities; thus Type III projects' condition (other activities) does not apply.

Thus, this grouped project is a large-scale project according to the definitions and criteria established by the CDM.

2 General description of the project

Solar Parks in the Cuyo Region is a grouped project that has two initial solar parks in the first instance:

Instance 01: Sierras de Ullum Solar Park (PSSU) and Tocota Solar Park (PSTO III).

Both parks are located in the province of San Juan within the Cuyo region in Argentina. This region also includes the province of Mendoza, so it is possible for new instances of the grouped project to be implemented in this province. In fact, two solar parks that have not yet obtained their commercial authorization but will be included in the next instance are the Malargüe and Anchoris solar parks, located in the Malargüe and Luján de Cuyo departments, respectively, in the province of Mendoza.

All instances (current and future) of the proposed project aim to generate electricity using environmentally friendly technology, specifically, solar energy. In an international context where climate change is widely recognized for its negative effects on the economies of nations, people's lives, and biodiversity, generating electricity using renewable energies is an auspicious event that deserves to be encouraged.

Renewable energies, and solar energy in particular, represent a significant contribution to society as they allow for a reduction in dependence on fossil fuels as energy source and the mitigation of gas emissions into the atmosphere that contribute to the greenhouse effect (GHG emissions), the main cause of the planet's climate change.

The Cuyo region in Argentina is characterized by its mountainous terrain and sparse vegetation, accompanied by a desert climate (dry weather with minimal precipitations) that makes it an ideal location for the development of solar projects. Solar radiation in this region is enhanced by the altitude of some areas, which guarantees both more hours of sunlight per day and an optimal intensity for solar energy generation.

Furthermore, the availability of vast and flat land facilitates the installation of large-scale solar panels, allowing for the construction of efficient and productive solar parks. The climatic stability of Cuyo, with few clouds and rainfall, ensures a constant production of solar energy throughout the year, maximizing its performance. The region also benefits from its proximity to major urban centers, which facilitates the distribution of the generated energy to areas with higher demand.

Finally, the government support for renewable energies in Argentina, with fiscal incentives and financing programs, makes the installation of solar parks in Cuyo even more attractive from an economic and sustainable perspective.

In December 2015, National Law No. 27,191 was enacted, which amends Law No. 26,190, known as the "Renewable Energy Law". This amendment established that by December 31, 2017, the National Energy Matrix should have a contribution of 8% from renewable energies, gradually increasing to reach 20% by the year 2025.

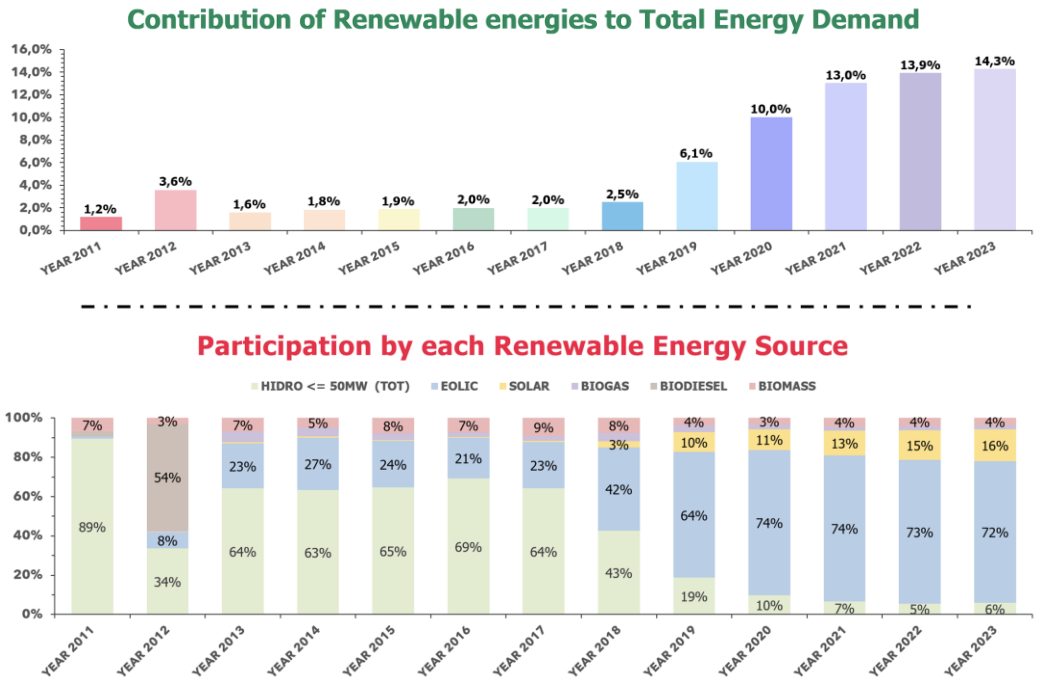

Figure 1: The upper graph shows the increment of the relative contribution of renewable energies to the National Energy Matrix year by year. The lower graph shows the relative participation of each renewable energy source year by year. The information was obtained from reports made by CAMMESA (Compañía Administradora del Mercado Mayorista Eléctrico S.A.), and publicly available on its website.

As seen in figure 1, in recent years, the increase in the contribution of renewable energies to total demand has begun to slow down. For example, in the last three years, there has been a relative increase of 1.3% in this contribution, compared to an increase of 3% that occurred only between 2020 and 2021. At the same time, the relative contribution of renewable energies to total demand in the last year was 14.3%, which implies that in 2024 there should be a relative increase of 5.7% in order to reach the 20% established by National Law No. 27,191 by early 2025.

Taking this into account, the objectives set for the year 2025 in Law No. 27,191 will not be achievable unless the necessary support is provided and the paths are cleared for allowing projects like this one to be installed and operational, which is highly relevant considering that solar energy is currently the second most significant source of renewable energy in Argentina (figure 1, lower graph).

In this context, Argentina has implemented various mechanisms to promote the development of renewable energy. Among them are:

- **RenovAR:** A government-led program launched in 2016 under Law 27,191 aims to promote renewable energy generation in Argentina. Projects are awarded through public tenders, with energy purchase contracts secured for long-term periods by CAMMESA, the administrator of the wholesale electricity market. To reduce financial risks for investors, RenovAR offers a government-backed guarantee fund (FODER) that ensures payment obligations are met. Furthermore, the RenovAR tariff is higher than the market spot price, and the government subsidizes the difference as part of this program. Additionally, to further mitigate risks for renewable energy generators awarded contracts under RenovAR, CAMMESA guarantees dispatch without the need to request priority. This mechanism has been instrumental in providing financial security and attracting investment in renewable energy projects, with competitive pricing established through the bidding process. RenovAR operates through rounds, or calls for proposals, conducted by CAMMESA; to date, three rounds have taken place, with the first round held in 2016[A].

- **MATER (Renewable Energy Term Market):** A mechanism established under Law 27,191 that allows renewable energy generators to sell electricity directly to large users through bilateral Power Purchase Agreements (PPAs). Unlike RenovAR, MATER operates without government guarantees, so project revenues depend entirely on private contracts negotiated between the generator and the client. Under the MATER regime, the generator must register with the National Registry of Renewable Energy Projects (RENPER) and request dispatch priority from CAMMESA; however, this priority may not be granted due to grid saturation, thereby increasing the financial risk of projects under this regime. Additionally, unlike RenovAR, MATER does not offer a subsidized tariff but rather a promotional framework in which the generator and the large user must agree on the energy sale price. This framework is supported by Law 27,191, which mandates that 20% of large users' energy consumption comes from renewable sources, making the option to purchase energy through MATER contracts attractive. Consequently, this mechanism involves higher financial risk due to the absence of state-backed guarantees and reliance on market conditions. MATER began in 2017 and continues to operate today[B].

[A] Information on how the RenovAR mechanism operates can be found in the terms and conditions document, which can be accessed through the official RenovAR website.

[B] Resolution 281-E/2017, which established MATER, is available at the following link. It briefly explains how it was created and refers to the RenovAR program as a different regime created under Law 27,191. More information about the operation of MATER can be found in its dedicated section on the CAMMESA website.

Although RenovAR was already in place when both parks commenced operations, both solar parks included in Instance 01 (PSSU and PSTO III) are framed within the MATER mechanism.

All instances of the grouped project will reduce CO_2 emissions by displacing a portion of the energy supplied to the SADI with renewable energy, generated by solar parks located in the Cuyo region in Argentina. These parks are Greenfield power plants, as defined by ACM0002, meaning that they are newly constructed facilities built specifically for the purpose of generating renewable energy and were not operational prior to the implementation of the project activities. Thus, the existing scenario prior to the implementation of the project activities is characterized by the absence of these renewable energy facilities, with the energy demand being predominantly met by fossil fuel-based power plants connected to the grid.

The development of this grouped project corresponds to the growing energy needs, the increasing concern for the environment, nature, and quality of life. That is why, in recent years, significant efforts have been dedicated to researching new clean and inexhaustible energy sources that contribute to building a solid energy supply, with guarantees of sustainable supply. Among renewable energy sources, photovoltaic energy has emerged strongly and has established itself as a reliable option both economically and environmentally. Without emissions, inexhaustible, competitive, and wealth- and job-creating. The "success of the sun" is based on a high level of technological industry that has reached significant maturity in recent years.

The renewable energy project contributes significantly to various Sustainable Development Goals (SDGs) through its comprehensive approach to sustainability and climate action.

SDG 7: The project generates clean solar photovoltaic energy, increasing the share of renewable energy in Argentina's national grid (SADI), displacing fossil fuel-based power, and reducing carbon emissions.

SDG 8: The project creates sustainable jobs in the construction, operation, and maintenance of solar parks, promoting economic growth and improving financial inclusion for employees.

SDG 12: The project implements effective waste recycling and transparent sustainability reporting.

SDG 13: The project supports Argentina's climate action goals under the Paris Agreement by generating renewable energy, reducing greenhouse gas emissions, and promoting climate education and capacity-building.

SDG 15: The project promotes land restoration and biodiversity conservation activities during its abandonment phase, supporting sustainable land management and ecosystem protection.

Sierras de Ullum Solar Park (PSSU)

PSSU is located on a property in the Ullum Department, Province of San Juan.

PSSU has as its integral purpose the operation of a solar park with a nominal power of 78 MW of alternating current (AC) at the point of interconnection and an installed capacity of 81.3 MW of direct current (DC) under Standard Test Condition (STC).

From a technical point of view, the area has great potential for the construction of a photovoltaic solar plant. Site feasibility requires the capacity to evacuate the electrical grid and to have a considerable global horizontal irradiation value. The selected site meets both conditions.

This solar park is estimated to generate an average reduction of 61,782 tCO_2e annually, during the first quantification period.

Tocota Solar Park (PSTO III)

PSTO III is located on a property in the Calingasta Department, Province of San Juan.

PSTO III has as its integral purpose the operation of a photovoltaic solar plant with a nominal power of 60 MW at the point of interconnection and an installed capacity of 65.44 MW of peak power installed under STC.

From a technical point of view, the area has great potential for the construction of a photovoltaic solar plant. Site feasibility requires the capacity to evacuate the electrical grid and to have a considerable global horizontal irradiation value. The selected site meets both conditions.

This solar park is estimated to generate an average reduction of 51,083 tCO_2e annually, during the first quantification period.

2.1 GHG project name

Solar Parks in the Cuyo Region.

2.2 Objectives

- Enhance the use of renewable resources in the Cuyo area for the production of clean energy, which helps reduce the generation of energy from current conventional sources that are highly polluting to the environment.

- Attract investments and develop a hub linked to the generation of clean energies, particularly photovoltaic solar energy. This is a good way to generate new jobs and added value throughout the productive chain related to photovoltaic solar energy in the Cuyo region.

- Contribute to the fulfillment of National Law No. 27,191, which establishes the obligation for the national energy matrix to have a 20% contribution of renewable energy by 2025. This will only be possible by strategically promoting the development of this type of project. Compliance with this law will help to achieve greater energy diversification for consumers, to ensure less dependence on the cost of fossil resources.

- Reduce an estimated average of 112,864 tCO_2e annually during the first quantification period, by replacing the use of conventional –highly polluting– energy sources.

- Promote economic development and employment in the region through construction (engineering, infrastructure, civil/electrical work, and installation) and operation (maintenance, service, management).

2.3 Project activities

GENNEIA S.A. is a leading company in the supply of energy solutions based on the use of state-of-the-art technologies. It is the main investor in renewable energy projects in the Argentine country.

For all solar plants (and instances) of this grouped project, the grid-connected photovoltaic installation follows a simple operating scheme:

The photovoltaic generators consist of a series of modules of the same model electrically connected to each other in series and parallel, responsible for converting solar energy into electrical energy, generating a direct current proportional to the solar irradiance incident upon them.

It is important to note that it is not possible to inject energy from the photovoltaic generator directly into the electrical grid; it needs to be converted into alternating current to be coupled to it. The generated DC is conducted to the inverter, which, through power electronics, converts it into AC at the same frequency and voltage as the electrical grid (in this case, at the low-voltage level).

By means of power transformers, the electrical voltage is raised from generation levels to medium-voltage levels for the internal distribution of the plant in order to evacuate the energy with the least possible losses to the point of interconnection.

Depending on the total power of each plant and the characteristics of each point of interconnection, the interconnection infrastructure is specifically designed for each project solar park.

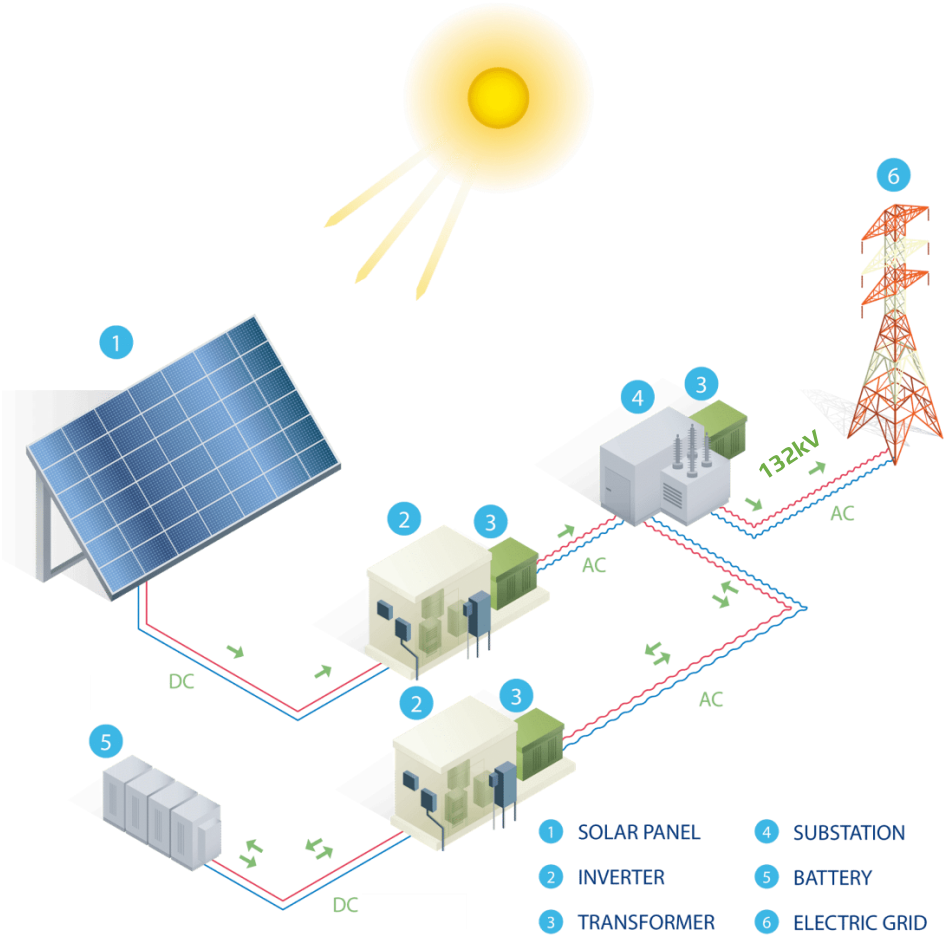

Figure 2: Basic operation diagram of a grid-connected photovoltaic installation. The Batery Energy Storage System (BESS) shown in the diagram does not apply to the project and is only schematic.

PSSU

The control center is located outside the project area, in the existing Ullum 1, 2, and 3 Solar Parks premises (not included in this project), consolidating operations. A building serves as a control center and warehouse for the operation and maintenance of the Plant. The following image shows the location of the control center in relation to the PSSU project area.

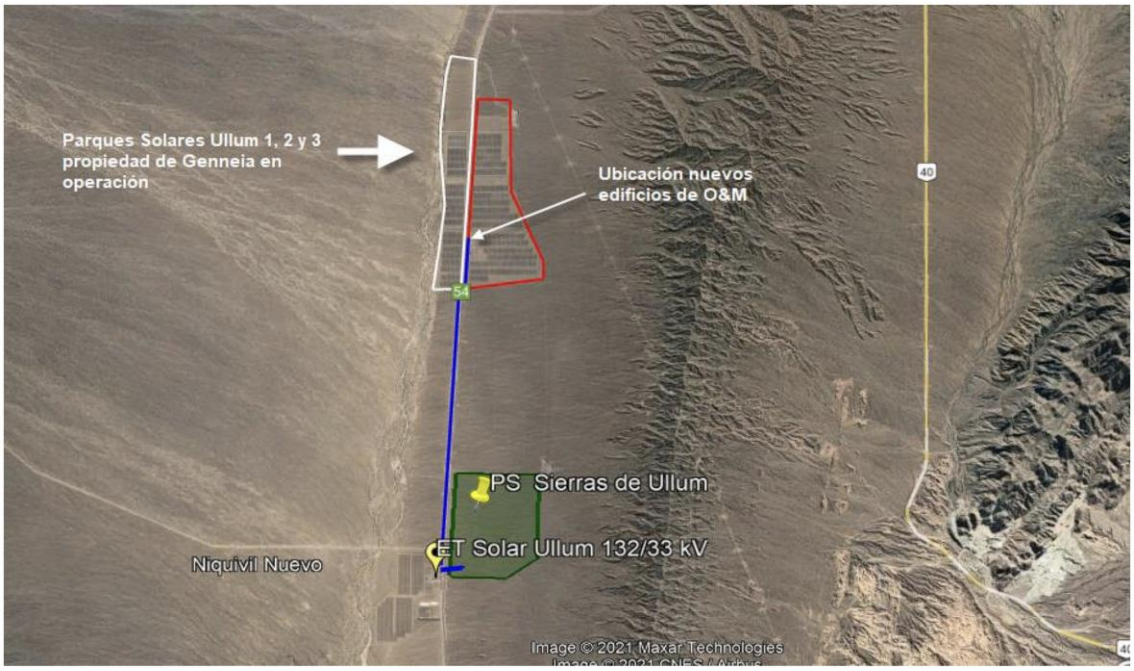

Figure 3: Location of the control center (red polygon) relative to the PSSU project area (green polygon). Source: Google Earth/GENNEIA S.A.

After the conversion process takes place in the inverters and transformers cabins (from DC to AC), the final nominal power delivered by PSSU is 78 MW. This will displace an average of 173,153 MWh/year from the SADI for the first quantification period, representing an average emissions reduction of 61,782 tCO_2e per year.

The solar park's switching center is connected via a 33 kV underground medium voltage line (LMT) to the cells of the Ullum Solar transformer station, which is owned by Energía Provincial Sociedad del Estado (EPSE) and already operational. This infrastructure was developed as part of a strategic initiative by EPSE, which acquired the land—originally provincial public land—and designated it for renewable energy projects. EPSE constructed the transmission and distribution infrastructure, including the transformer station, and subsequently subdivided the land into plots to enable the development of solar parks as this one.

The following table summarizes the specific electrical characteristics of the selected photovoltaic module:

Photovoltaic Module Datasheet	
Manufacturer	JINKO
Model	JKM540M-72HL4-BDVP

Maximum Power	540 W
Maximum Power Voltage (Vmp)	41.13 V
Maximum Power Current (Imp)	13.89 A
Open Circuit Voltage (Voc)	49.73 V
Short Circuit Current (Isc)	13.89 A
Efficiency	20.94%
Maximum Power Temperature Coefficient	-0.35% / °C
Open Circuit Voltage Temperature Coefficient	-0.28% / °C
Short Circuit Current Temperature Coefficient	0.048% / °C
Maximum System Voltage	1,500 V
Total expected lifespan	30 years

Table 3: Technical characteristics of the selected module.

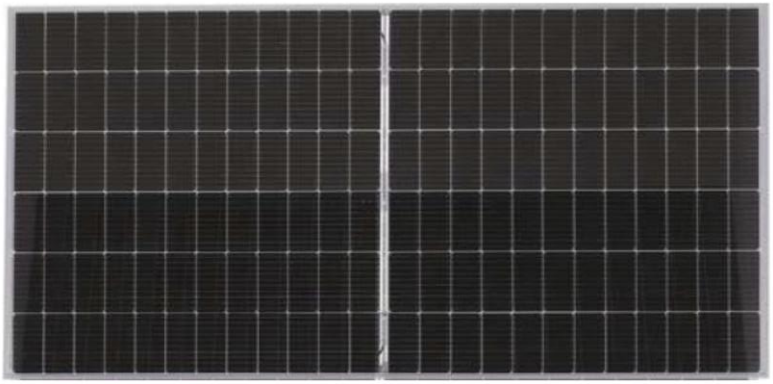

Figure 4: Illustrative image of the photovoltaic module.

The photovoltaic modules are mounted on a single-axis movable structure, allowing tracking of the sun's rays from east to west for different times of the day to better harness the solar resource. The specific characteristics of the selected solar tracking system are as follows:

Technical data of the tracking system	
Manufacturer	ANTAI
Model	TAI SPACE
Tracking Type	Single Axis
Tracking Angle	+/- 60°
Mounting Type	1P

Table 4: Technical characteristics of the tracking system.

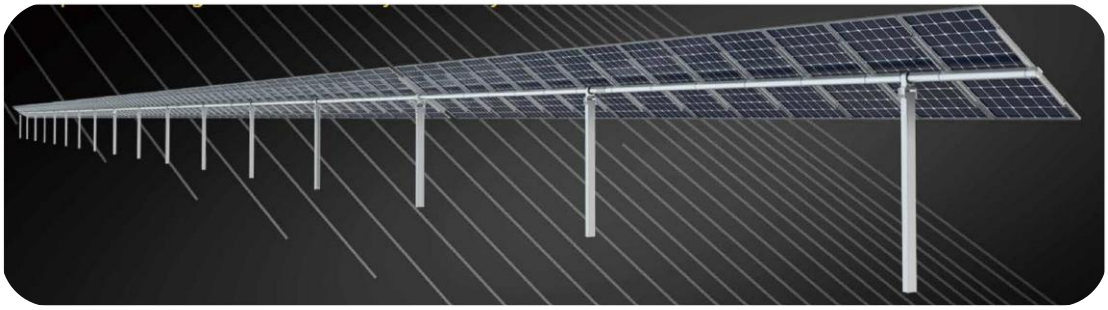

Figure 5: Illustration of the tracking system.

The park has a total of 14 identical blocks. Each block has 32 inverters according to the following table.

Block	AC Power @40°C (kVA)	DC Power @STC (kW)	Inverters per Block	Inverter Power @40°C (kVA)	Module Power @STC (W)	Modules per String	Strings per Inverter	Strings
1 to 14	6,500	5,806	32	204	540	28	12	384

Table 5: Inverters configuration.

The inverters have been selected to comply with grid codes for the Plant's nominal power, site operating conditions, and optimization of the available land for the Project. The specific characteristics of the selected inverters are as follows:

Inverter Datasheet	
Manufacturer	HUAWEI
Model	SUN2000-215 KTL-H3
Nominal Power (@25ºC) kWac	215 W
Maximum Input Voltage Allowed	1,500 V
Maximum Input Current Allowed	30 A
MPPT Vmin	500 V
MPPT Vmax	1,500 V

Table 6: Technical characteristics of the inverter.

Figure 6: Illustrative image of the inverter.

As previously mentioned, the inverters of the Solar Park are grouped into 14 blocks and they are connected to transformation centers (TCs) to raise their voltage from low voltage to medium voltage. The TCs have a three-winding step-up transformer, two low-voltage switchboards for connecting the inverters, a medium-voltage switchgear for connection to the medium-voltage collector network, and other components necessary for auxiliary services.

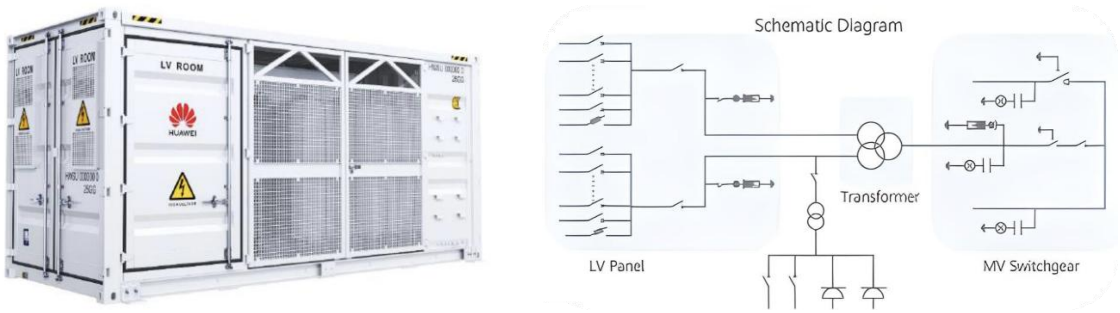

Figure 7: TCs outdoor equipment (left) and typical connection diagram (right).

The Solar Park consists of three types of collector networks, namely:

- Direct current collector network consisting of Solar type copper cables, where one section is mounted on the tracking structures and the other section buried to the inverters.
- Low-voltage collector network consisting of three-core aluminum cables insulated in cross-linked polyethylene. They are installed directly buried between inverters and transformation centers.
- Medium-voltage collector network consisting of single-core aluminum cables insulated in cross-linked polyethylene. They are installed directly buried between TCs and medium-voltage collector bars of the solar park.

The overall operation scheme of the solar park is the following:

The energy generated by the photovoltaic modules is collected by the DC current collector networks and transported to the inverters of the Solar Park, which are grouped into 14 blocks and connected to transformation centers (TCs) to raise the voltage from low to medium. From the TCs, the energy is transmitted to the park's own switchgear building. From there, two underground lines, approximately 320 meters in length, extend beneath National Route No. 54, connecting to the cells of the Ullum Solar transformer station (TS), owned by EPSE, where the voltage is finally raised to high-voltage and evacuated into the SADI at the 132 kV level.

It is worth noting that the switchgear building houses not only the two underground lines, but also the necessary auxiliary equipment for the plant, as well as the control, protection, and measurement systems of the solar park.

The electromechanical installation drawings, the project layout and equipment specifications are attached in the corresponding specific folders included in Annex 01 folder, that will be provided to the CAB.

In case of component damage or failure during the operation of the plant, the disposal mechanism involves the temporary storage of damaged parts in designated areas, followed by their removal and transport by authorized waste management companies. Reusable materials are recovered, while hazardous or non-recyclable components are disposed of according to applicable environmental regulations.

PSTO III

The operation and maintenance office are located within the PSTO III project area, at the central coordinates 30°49'37.52"S; 69°28'2.50"W. Operational structures are installed for the operation and maintenance (O&M) of the Plant, including a parking lot, a warehouse, and a site for waste disposal. The following image shows the location of the O&M office in relation to the PSTO III project area.

Figure 8: Location of the O&M Operational Structure relative to the PSTO III project area (yellow polygon). Source: Google Earth/GENNEIA S.A.

After the conversion process takes place in the inverters and transformers cabins (from DC to AC), the final nominal power delivered by PSTO III is 60 MW. This will displace an average of 143,169 MWh/year from the SADI for the first quantification period, representing an average emissions reduction of 51,083 tCO_2e per year.

The solar park's own switching center will be connected by two underground 33 kV medium voltage lines (LMT) that will connect to the cells of the Tocota transformer station, owned by EPSE. This infrastructure was developed as part of a strategic initiative by EPSE, which acquired the land—originally provincial public land—and designated it for renewable energy projects. EPSE constructed the transmission and distribution infrastructure, including the transformer station, and subsequently subdivided the land into plots to enable the development of solar parks as this one.

The following table summarizes the specific electrical characteristics of the selected photovoltaic module for PSTO III solar park:

Photovoltaic Module Datasheet	
Manufacturer	JINKO
Model	JKM565N-72HL4-BDV
Maximum Power	540 W
Maximum Power Voltage (Vmp)	42.14 V
Maximum Power Current (Imp)	13.41 A
Open Circuit Voltage (Voc)	50.87 V
Short Circuit Current (Isc)	14.19 A
Efficiency	21.87%
Maximum Power Temperature Coefficient	-0.30% / °C
Open Circuit Voltage Temperature Coefficient	-0.25% / °C
Short Circuit Current Temperature Coefficient	0.046% / °C
Maximum System Voltage	1,500 V
Total expected lifespan	30 years

Table 7: Technical characteristics of the selected module.

An illustrative image of the photovoltaic module is shown in figure 4. The photovoltaic modules are mounted on a single-axis mobile structure, allowing them to track the sun from east to west throughout the day, aiming to maximize solar resource utilization. The specific characteristics of the selected solar tracking system are as follows:

Technical data of the tracking system	
Manufacturer	ARCTECH
Model	SKYLINE I
Tracking Type	Single Horizontal Axis
Tracking Angle	+/- 60°
Mounting Type	Direct piling/predrilling

Table 8 (previous page): Technical characteristics of the tracking system.

An illustrative image of the tracking system is shown in figure 5.

The park inverters are grouped in blocks, with a total of 540 inverters according to the following table.

Block	AC Power @40°C (MW)	DC Power @STC (MWp)	Total Inverters	Inverter Power @40°C (kVA)	Module Power @STC (W)	Modules per String	Strings per Inverter	Strings
Complete Park	100	107.09	540	215	565	27	13	7,020

Table 9: Inveters configuration.

The inverters have been selected to comply with grid codes for the Plant's nominal power, site operating conditions, and optimization of the available land for the Project. The specific characteristics of the selected inverters are shown in table 6, since the technology and model is the same as for the PSSU project. An illustrative image of the inverter is shown in figure 6. These inverters, which are grouped into blocks, are connected to the Transformation Centers (TCs) to raise their voltage from low voltage to medium voltage.

The specific characteristics of the selected TCs are as follows:

Technical specifications of the TCs	
Manufacturer	HUAWEI
Model	STS-6000K-H1
Nominal Power (40° C)	6500 kVA
AC Voltage on LV Side	0.8 kV
AC Voltage on MV Side	33 kV

Table 10: Characteristics of PSTO III TCs.

The TCs feature a three-winding step-up transformer, two low-voltage panels for connecting the inverters, a medium-voltage switchgear for connection to the medium-voltage collector network, an auxiliary power transformer, and other components necessary for auxiliary services. The TCs are comprised of outdoor equipment in Skid format, as shown in figure 7.

The plant consists of three types of collector networks, namely:

- Direct Current (DC) Collector Network: composed of Solar-type copper cables, part of which are mounted on the tracking structures and the other part buried to the inverters.

- Low Voltage (LV) Collector Network: composed of cross-linked polyethylene insulated aluminum triplex cables. They are directly buried between inverters and transformer stations. The voltage level is 0.8 kV.

- Medium Voltage (MV) Collector Network: composed of aluminum single-core cables insulated in cross-linked polyethylene. They are directly buried between the transformer stations and medium-voltage collector bars of the Plant. The voltage level is 33 kV.

The overall operation scheme of the Solar Park is the following:

The energy generated by the photovoltaic modules is collected by the DC current collector networks and transported to the inverters of the Solar Park, which are grouped into blocks and connected to transformation centers (TCs) to raise their voltage from low voltage to medium voltage. From the TCs, the energy is collected by the medium voltage network through six (6) 33 kV collector branches, which direct the energy to the switchgear building. This building houses two (2) underground 33 kV interconnection lines, as well as the necessary auxiliary service equipment for the plant, along with its control, protection, and measurement systems.

The energy is then transmitted through these two underground 33 kV interconnection lines to the medium-voltage busbars of the Tocota TS, located to the south of the solar park, where the voltage finally raised to high-voltage and evacuated into the SADI at the 132 kV level.

The electromechanical installation drawings, the project layout and equipment specifications are attached in the corresponding specific folders included in Annex 01 folder, that will be provided to the CAB.

In case of component damage or failure during the operation of the plant, the disposal mechanism involves the temporary storage of damaged parts in designated areas, followed by their removal and transport by authorized waste management companies. Reusable materials are recovered, while hazardous or non-recyclable components are disposed of according to applicable environmental regulations.

2.4 Project location

The project is located in the Cuyo region in the central-western part of the Argentine Republic and is comprised of the provinces of Mendoza, San Juan, and San Luis. This region has a total estimated area of 315,226 km². In Cuyo, a mountainous terrain with sparse vegetation predominates, characterized by desert-like climatic conditions. The grouped project may implement future instances in the provinces of San Juan or Mendoza.

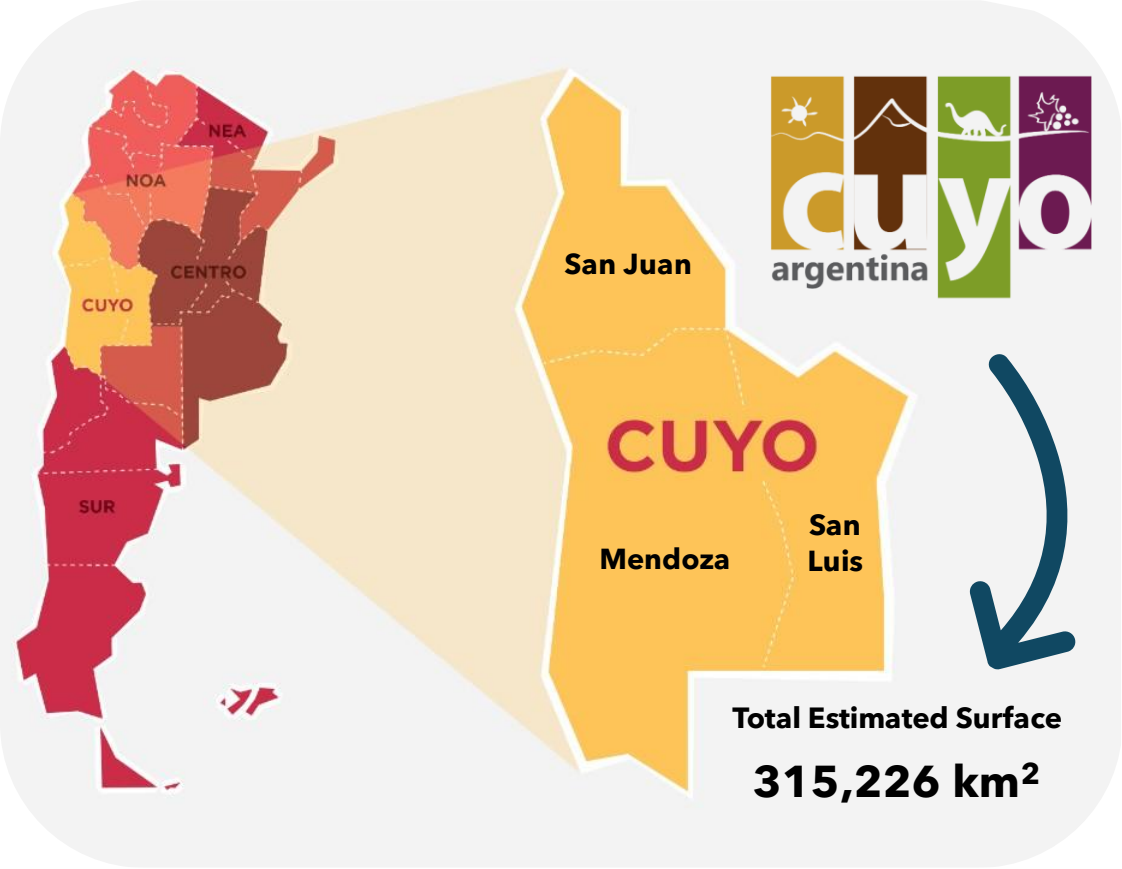

Figure 9: Map of Argentine regions showing Cuyo region in yellow, encompassing provinces of San Juan, San Luis and Mendoza.

PSSU

The PSSU project is located on Provincial Route No. 54, at kilometer 5.6, in the Ullum department, San Juan province. Access to the site from the city of San Juan is achieved by traveling 23.5 km northwest on Provincial Route No. 60 until the intersection with Provincial Route No. 54, finally travelling 4.7 km north until reaching the site's entrance. The land area is 159 hectares, identified with Cadastral Nomenclature NC: 0730/210705, Fraction 2D of Plane 07-939-19.

Figure 10: Map with location of the PSSU project (green polygon). Source: Google Earth/GENNEIA S.A.

The vertices defining the perimeter of the project area are presented in the following table.

Vertex	Geographic Coordinates – WGS 84	
	Latitude	Longitude
1	31°22'17.17"S	68°40'19.12"W
2	31°22'17.06"S	68°39'36.95"W
3	31°22'54.70"S	68°39'36.89"W
4	31°23'3.87"S	68°39'52.11"W
5	31°23'3.94"S	68°40'19.26"W
6	31°23'3.17"S	68°40'21.16"W

Table 11: Coordinates of the boundaries of the PSSU site.

Below, the vertices of the project area are indicated on a satellite image.

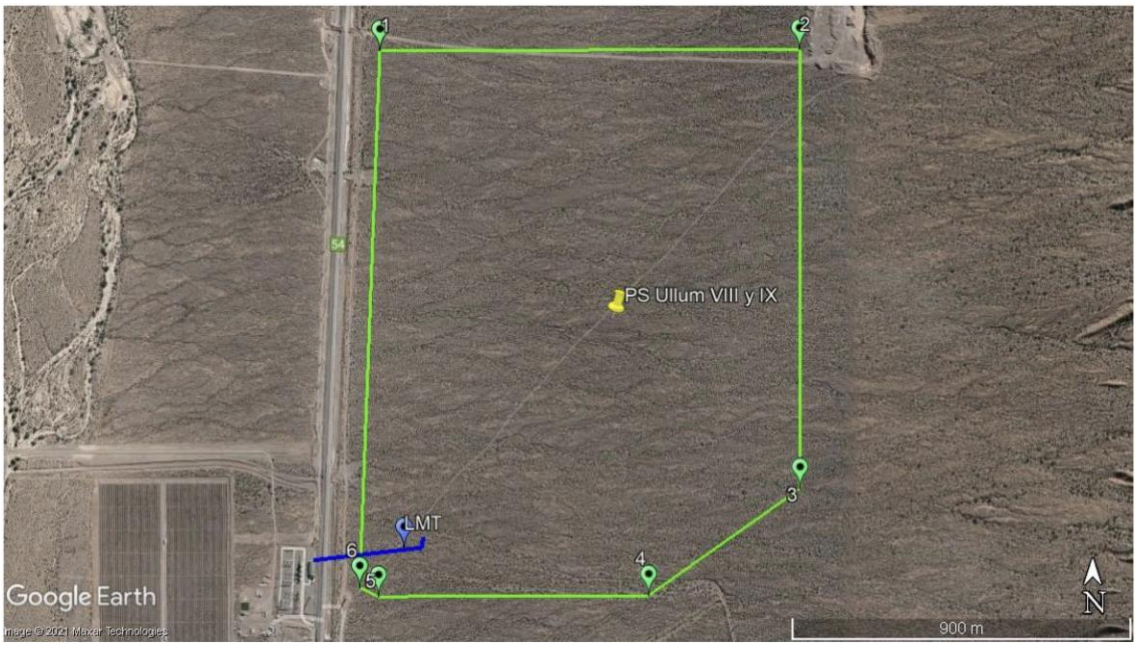

Figure 11: Boundaries corresponding to PSSU (green polygon) and linking LMT layout (blue line). Source: Google Earth/GENNEIA S.A.

Figure 12: Overview of the PSSU from vertex 2 (left) and vertex 4 (right). See figure 11 for vertex nomenclature.

The park's connection is carried out through two underground lines approximately 320 meters long, which depart from the park's own switchgear building, pass under National Route No. 54, and connect to the cells of the Ullum Solar TS, owned by EPSE.

The coordinates of the LMT trace are presented below.

Instalation	Geographic Coordinates – WGS 84	
	Latitude	Longitude
Switchgear Building	31°22'58.90"S	68°40'14.77"W
Ullum Solar 132/33kV TS	31°23'0.87"S	68°40'25.88"W

Table 12: Location of the Switchgear Building and the Ullum Solar TS.

The following table summarizes the surface area that is occupied by the site considering all factors involved in the project.

Project components	Occupied Surface		
	(m^2)	(ha)	(%)
Internal Roads	51,500	5.15	3.24
Photovoltaic modules, inverters, TS	1,426,900	142.69	89.74
Internal collector network	2,580	0.26	0.16
33kV linking LMT	448	0.04	0.03
Switchgear building	60	0.01	0.004
Operating buildings	212	0.02	0.01
Temporary installations (only storage platform)	28,800	2.88	1.81
Project Totals	**1,510,500**	**151.05**	**95***

Table 13: Surface area occupied by the Solar Park.
*The project total area represents the 95% of the total area of the private property.

Additionally, the construction of buildings located outside the site (PS Ullum I, II, and III) was made in order to unify the operation, estimating an area to be occupied of 200 m^2.

PSTO III

The PSTO III project is located on a property in the Department of Calingasta, Province of San Juan. Access to the site is 65 km north of Calingasta on provincial route (RP) No. 412; after traveling approximately 35 km and reaching a bridge crossing in the town of Villa Nueva and then another 30.5 km north until reaching the entrance to the Tocota transformer station. From there, there is approximately 4.7 km to the park.

The property covers about 300 hectares at an average altitude of 2,435 meters above sea level, identified by the Cadastral Nomenclature: a) Fractions A1, B2, C2, D1 of the Cadastral Nomenclature No. 1620-736440, of Survey Plan No. 16-2611-15 of the Directorate of Geodesy and Cadastre; b) Fraction A2 of the Cadastral Nomenclature No. 1620-738458, Survey Plan No. 16-2611-15 of the Directorate of Geodesy and Cadastre.

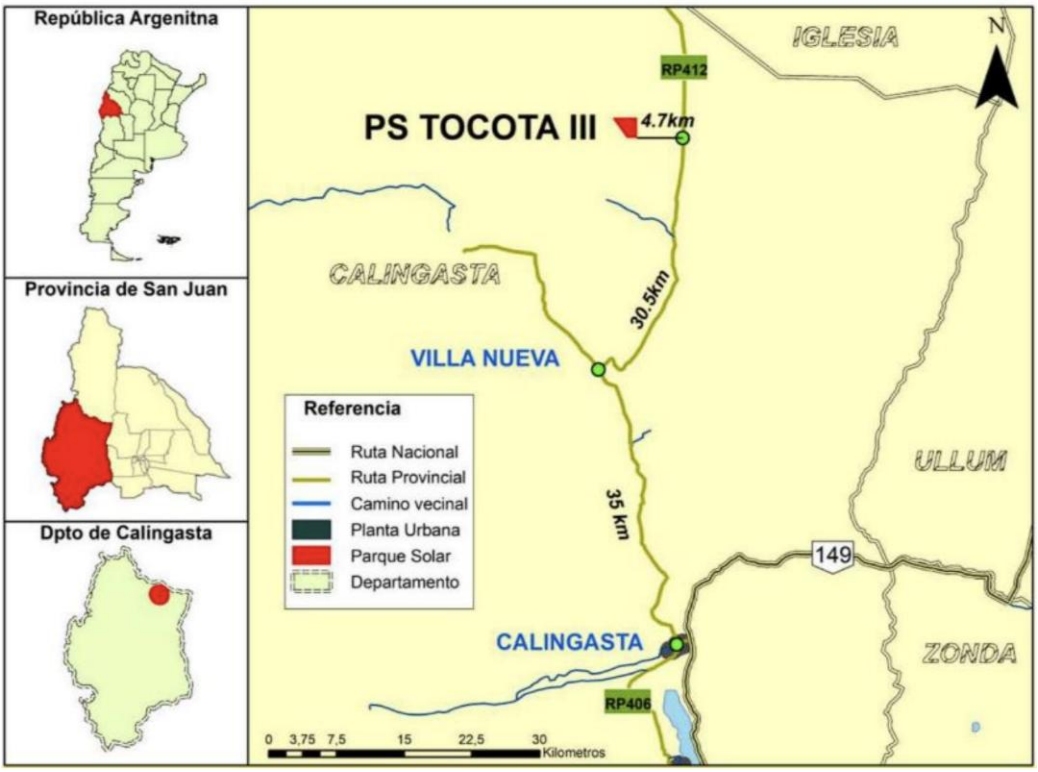

Figure 13 (previous page): Maps with location of the PSTO III project. Source: Google Earth/GENNEIA S.A.

The vertices defining the perimeter of the project area are presented in the following table.

Vertex	Geographic Coordinates – WGS 84	
	Latitude	Longitude
P1	30°48'36.85"S	69°29'11.96"W
P2	30°49'43.66"S	69°28'23.51"W
P3	30°49'43.77"S	69°27'52.87"W
P4	30°48'37.14"S	69°27'52.55"W

Table 14: Coordinates of the boundaries of the PSTO III site.

Below, the vertices of the project area are indicated on a satellite image.

Figure 14: Boundaries corresponding to PSTO III and Tocota transformer station. Source: Google Earth/GENNEIA S.A.

The energy coming from the TCs is collected through six (6) 33 kV collector branches in both 33 kV bars of the Switchgear building of the Solar Park, and from there, the energy is evacuated through two (2) underground interconnection lines of 33 kV to the MT bars of the Tocota 132/33 kV TS, owned by EPSE and located south of the Solar Park, approximately 200 meters from it.

Instalation	**Geographic Coordinates – WGS 84**	
	Latitude	Longitude
Switchgear Building	30°49'36.69"S	69°28'1.42"W
Tocota 132/33kV TS	30°49'54.71"S	69°27'54.43"W

Table 15: Location of the Switchgear Building and the Tocota TS.

Below, linking LMT layout are indicated on a satellite image.

Figure 15: Linking LMT layout for PSTO III (blue line). Source: Google Earth/GENNEIA S.A.

The following table summarizes the surface area that is occupied by the site considering all factors involved in the project.

Project components	Occupied Surface		
	(m^2)	(ha)	(%)
Internal Roads	27,500	2.75	5.59
Photovoltaic modules, inverters, TS	390,000	39	79.32
Internal collector network	12,200	1.22	2.48
33kV linking LMT	1,440	0,.44	0.29
Switchgear building	75	0.0075	0.02
Operating buildings	491	0.0491	0.10
Temporary installations (only storage platform)	60,000	6	12.20
Project Totals	**491,706**	**49.17**	**16.39***
Total area of private property	**3,000,000**	**300**	**100**

Table 16: Surface area occupied by the Solar Park.
*The project total area represents the 16.39% of the total area of the private property.

Additionally, the construction of perimeter roads for the park was made, occupying an area of 30,000 m^2.

2.5 Additional information about the GHG Project

No additional information is provided.

3 Quantification of GHG emissions reduction

3.1 Quantification methodology

To quantify emission reductions from the project activities, the steps and equations outlined in the ACM0002 "Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources" (v22.0) are followed, and GHG emissions reduction calculations are derived accordingly.

For the identification of the baseline scenario ACM0002 states:

"If the project activity is the installation of a Greenfield power plant with or without a BESS as described under paragraph 5(a) or paragraph 7(a) or paragraph 7(e), the baseline scenario is electricity delivered to the grid by the project activity that would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in TOOL07."

With that said, TOOL07 v7.0 is used for calculations to establish the CM.

3.1.1 Applicability conditions of the methodology

Both the conditions imposed by ACM0002 (v22.0), and the additional conditions imposed by the BCR Energy Sector guide for NCRE projects (v1.1) must be met to demonstrate the applicability of the grouped solar project.

BCR Applicability:

The extra applicability conditions imposed by the BCR standard are three. Each of them is presented below along with a justification of the applicability for the grouped solar project.

BCR Energy Sector Guide (v1.1) Applicability Conditions	Applicability of the project
Only peak-centrals, mini-hydroelectric, and small hydroelectric plants (PCH) are included, i.e., with an installed capacity of less than 20,000 kW. Additionally, the operation must be continuous flow, either in unconnected or interconnected areas. Furthermore, if the PCH diverts the river flow, it must ensure a permanent environmental flow in the natural riverbed. Finally, PCH with reservoirs or dams are not included.	All the plants (and instances) of Genneia's project are solar generation and not hydroelectric generation. Therefore, this condition does not apply.
Geothermal and tidal energy sources are not included.	The energy source for all plants (and instances) of Genneia's project is photovoltaic solar energy. Therefore, this condition does not apply.

Only projects with activities associated with renewable energies, or that, as a result of project activities, replace fossil fuels with NCRE, are included.	All the plants (and instances) of Genneia's grouped project generate renewable energy since photovoltaic solar energy is classified as NCRE according to the BCR Energy Sector Guide v1.1, Scope section, page 6.

Table 17: Applicability conditions of BCR Energy Sector Guide and fulfillments made by the grouped project.

ACM0002 Applicability:

ACM0002 (v22.0) Applicability Conditions	Applicability of the project
This methodology is applicable to grid-connected renewable energy power generation project activities that: (a) Install a Greenfield power plant; (b) Involve a capacity addition to (an) existing plant(s); (c) Involve a retrofit of (an) existing operating plant(s)/unit(s); (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s)/unit(s); or (f) Install a Greenfield power plant together with a grid-connected Greenfield pumped storage power plant. The greenfield power plant may be directly connected to the PSP or connected to the PSP through the grid.	All solar parks included in the grouped project comply with point (a), since they are/will be new renewable energy power plants that are constructed and operated at a site where no renewable energy power plant was operated prior to the implementation of the project activity.
In case the project activity involves the integration of a BESS, the methodology is applicable to grid-connected renewable energy power generation project activities that: (a) Integrate BESS with a Greenfield power plant; (b) Integrate a BESS together with implementing a capacity addition to (an) existing solar photovoltaic1 or wind power plant(s)/unit(s);	None of the plants (nor instances) of the grouped project involve the integration of a BESS. Therefore, this condition does not apply.

(c) Integrate a BESS to (an) existing solar photovoltaic or wind power plant(s)/unit(s) without implementing any other changes to the existing plant(s); (d) Integrate a BESS together with implementing a retrofit of (an) existing solar photovoltaic or wind power plant(s)/unit(s); (e) Integrate a BESS together with a Greenfield power plant that is operating in coordination with a PSP. The BESS is located at site of the greenfield renewable power plant.	
The methodology is applicable under the following conditions: (a) Hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit; (b) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant/unit must have started commercial operation prior to the start of a minimum historical reference period of five years. The reference period is used for the calculation of baseline emissions and defined in the baseline emission section. Furthermore, no capacity expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity;(c) In case of Greenfield project activities applicable under paragraph 7(a) above, the project participants shall demonstrate that the BESS was an integral part of the design of the renewable energy project activity (e.g., by referring to feasibility studies or investment decision documents);	All plants included in the grouped project comply with point (a) since they are solar plants. Points (b) to (e) do not apply, but this does not represent an exclusion criterion.

(d) The BESS should be charged with electricity generated from the associated renewable energy power plant(s). Only during exigencies2 may the BESS be charged with electricity from the grid or a fossil fuel electricity generator. In such cases, the corresponding GHG emissions shall be accounted for as project emissions following the requirements under section 5.4.4 below. The charging using the grid or using fossil fuel electricity generator should not amount to more than 2 per cent of the electricity generated by the project renewable energy plant during a monitoring period. During the time periods (e.g., week(s), months(s)) when the BESS consumes more than 2 per cent of the electricity for charging, the project participant shall not be entitled to issuance of the certified emission reductions for the concerned periods of the monitoring period. (e) In case the project activity involves PSP, the PSP shall utilize the electricity generated from the renewable energy power plant(s) that is operating in coordination with the PSP during pumping mode.	
In case of hydro power plants, one of the following conditions shall apply: (a) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or (b) The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased and the power density, calculated using equation (7), is greater than 4 W/m2; or (c) The project activity results in new single or multiple reservoirs and the power density, calculated using equation (7), is greater than 4 W/m2; or (d) The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (7), is lower than or equal to 4 W/m2, and all of the following conditions shall apply: (i) The power density calculated using the total installed capacity of the integrated project, as per equation (8), is greater than 4 W/m2; (ii) Water flow between reservoirs is not used by any other hydropower unit which is not a part of the project activity;	This condition does not apply because the project involves solar plants and not hydroelectric generation.

(iii) Installed capacity of the power plant(s) with power density lower than or equal to 4 W/m2 are: a. Lower than or equal to 15 MW; and b. Less than 10 per cent of the total installed capacity of integrated hydro power project.	
In the case of integrated hydro power projects, project participants shall: (a) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively constitute to the generation capacity of the integrated hydro power project; or (b) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum of five years prior to the implementation of the CDM project activity.	This condition does not apply because the project involves solar plants and not hydroelectric generation.
In the case of PSP, the project participants shall demonstrate in the PDD that the project is not using water which would have been used to generate electricity in the baseline.	This condition does not apply because the project involves solar plants and not Pumped Storage Plants.
The methodology is not applicable to: (a) Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; (b) Biomass fired power plants/units.	None of the plants (nor instances) of the grouped project involve what is indicated in (a) or (b). Therefore, this condition does not apply.

In the case of retrofits, rehabilitations, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is "the continuation of the current situation, that is to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance".	This condition does not apply because the project involves Greenfield solar power plants.

Table 18: Applicability conditions of ACM0002 methodology and fulfillments made by the grouped project.

Additionally, the applicability conditions included in the following tools apply: TOOL01, TOOL05, TOOL07, TOOL23, TOOL24 and TOOL27. The applicability of these tools will be addressed below.

CDM Tools Applicability Conditions	Applicability of the project
TOOL01 v7.0.0: Tool for the demonstration and assessment of additionality Applicability conditions: *The use of the "Tool for the demonstration and assessment of additionality" is not mandatory for project participants when proposing new methodologies. Project participants may propose alternative methods to demonstrate additionality for consideration by the Executive Board. They may also submit revisions to approved methodologies using the additionality tool.* *Once the additionally tool is included in an approved methodology, its application by project participants using this methodology is mandatory.*	This tool is used to demonstrate the additionality of Genneia's grouped solar project. All steps and procedures indicated in this tool are strictly respected and addressed clearly, detailedly, and transparently. Since the methodology applied for this project is ACM002 v22.0, and it is not a new methodology, the application of this tool is mandatory.

TOOL05 v3.0: Tool to calculate baseline, project and/or leakage emissions from electricity consumption Applicability conditions: *If emissions are calculated for electricity consumption, the tool is only applicable if one out of the following three scenarios applies to the sources of electricity consumption:* *(a) Scenario A: Electricity consumption from the grid. The electricity is purchased from the grid only, and either no captive power plant(s) is/are installed at the site of electricity consumption or, if any captive power plant exists on site, it is either not operating or it is not physically able to provide electricity to the electricity consumer;* *(b) Scenario B: Electricity consumption from (an) off-grid fossil fuel fired captive power plant(s). One or more fossil fuel fired captive power plants are installed at the site of the electricity consumer and supply the consumer with electricity. The captive power plant(s) is/are not connected to the electricity grid; or* (c) *Scenario C: Electricity consumption from the grid and (a) fossil fuel fired captive power plant(s). One or more fossil fuel fired captive power plants operate at the site of the electricity consumer. The captive power plant(s) can provide electricity to the electricity consumer. The captive power plant(s) is/are also connected to the electricity grid. Hence, the electricity consumer can be provided with electricity from the captive power plant(s) and the grid.*	This tool is used to monitor the amount of electricity generated by the project power plant. All steps and procedures indicated in this tool are strictly respected and addressed clearly, detailedly, and transparently. This grouped project does not calculate emissions from electricity consumption since it is an electricity generation project. This tool is used because it is referenced by methodology ACM002 v22.0 (paragraph 83) concerning the procedures for monitoring the amount of electricity generated in the project scenario. In this regard, the applicability condition requiring that only one of the three project scenarios applies to the project is met, as the only applicable scenario is Scenario I: electricity is supplied to the grid.

This tool can be referred to in methodologies to provide procedures to monitor amount of electricity generated in the project scenario, only if one out of the following three project scenarios applies to the recipient of the electricity generated: *(a) Scenario I: Electricity is supplied to the grid;* *(b) Scenario II: Electricity is supplied to consumers/electricity consuming facilities; or* *(c) Scenario III: Electricity is supplied to the grid and consumers/electricity consuming facilities.* *This tool is not applicable in cases where captive renewable power generation technologies are installed to provide electricity in the project activity, in the baseline scenario or to sources of leakage. The tool only accounts for CO_2 emissions.*	
TOOL07 v7.0: Tool to calculate the emission factor for an electricity system Applicability conditions: *This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).*	This tool is used to calculate the emission factor of the national interconnected grid for the calculation of reductions in Genneia's grouped solar project. All steps and procedures indicated in this tool are strictly respected and addressed clearly, detailedly, and transparently. This tool will be applied to estimate OM, BM, and CM when calculating baseline emissions, as the project activity generates solar photovoltaic energy that is injected into the grid and displaces electricity from the grid's margin.

Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, two sub-options under the step 2 of the tool are available to the project participants, i.e. option IIa and option IIb. If option IIa is chosen, the conditions specified in "Appendix 1: Procedures related to off-grid power generation" should be met. Namely, the total capacity of off-grid power plants (in MW) should be at least 10 per cent of the total capacity of grid power plants in the electricity system; or the total electricity generation by off-grid power plants (in MWh) should be at least 10 per cent of the total electricity generation by grid power plants in the electricity system; and that factors which negatively affect the reliability and stability of the grid are primarily due to constraints in generation and not to other aspects such as transmission capacity. *In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.* *Under this tool, the value applied to the CO_2 emission factor of biofuels is zero.*	Additionally, the spatial extent of the proposed project activity is defined as the interconnected Argentine electricity grid, namely the "Sistema Argentino de Interconexión" (SADI), within which the wholesale electricity market (Mercado Eléctrico Mayorista, MEM) operates. Consequently, off-grid power plants are excluded since they are not subject to MEM rules, and therefore, option IIa and option IIb of this tool will not be used. It is also noted that the tool is not applicable if the project electricity system is located partially or entirely in an Annex I country; this grouped project meets this condition, as it is developed in Argentina, which is not an Annex I country[C]. Finally, since no biofuels are involved in this project activity, the CO_2 emission factor for biofuels will not be used.
TOOL23 v03.0: Additionality of first-of-its-kind project activities Applicability conditions:	This tool will be used to determine whether the project activity is or not first-of-its-kind. All steps and procedures indicated in this tool will be strictly respected and addressed clearly, detailed, and transparently. Regarding applicability conditions, this tool is applicable to projects that use TOOL01 for the demonstration and assessment of additionality, as is the case of this grouped project.

[C] Annex I countries are available in the following link.

This methodological tool is applicable to project activities that wish to use the "first-of-its kind" approach to demonstrate additionality and that use versions of baseline and monitoring methodologies, or the "Tool for the demonstration and assessment of additionality" or the "Combined tool to identify the baseline scenario and demonstrate additionality", which allow using the "first-of-its-kind" approach for demonstrating additionality.	
TOOL24 v03.1: Tool for common practice Applicability conditions: *This methodological tool is applicable to project activities that apply the methodological tool "Tool for the demonstration and assessment of additionality", the methodological tool "Combined tool to identify the baseline scenario and demonstrate additionality", or baseline and monitoring methodologies that use the common practice test for the demonstration of additionality.* *In case the applied approved baseline and monitoring methodology defines approaches for the conduction of the common practice test that are different from those described in this methodological tool, the requirements contained in the methodology shall prevail.*	This tool will be used to determine whether the project activity is or not a common practice. All steps and procedures indicated in this tool will be strictly respected and addressed clearly, detailed, and transparently. Regarding applicability conditions, this tool is applicable to projects that use TOOL01 for the demonstration and assessment of additionality, as is the case of this grouped project. Additionally, the baseline and monitoring methodology applied (ACM0002 v22.0) does not define approaches for the conduction of the common practice test that are different from those described in this methodological tool.
TOOL27 v14.0: Tool for Investment analysis Applicability conditions: *This methodological tool is applicable to CDM project activities and programmes of activities (PoAs) that conduct an investment analysis for the demonstration of additionality and/or the identification of the baseline scenario.*	This tool will be used to elaborate an investment analysis as part of the demonstration of additionality of this grouped solar project. All steps and procedures indicated in this tool will be strictly respected and addressed clearly, detailedly, and transparently.

In case the applied approved baseline and monitoring methodology contains requirements for the investment analysis that are different from those described in this methodological tool, the requirements contained in the methodology shall prevail.	Regarding applicability conditions, this tool is applicable to projects that conduct an investment analysis for the demonstration of additionality and/or the identification of the baseline scenario, as is the case of this grouped project according to the conditions established in TOOL01 for the demonstration and assessment of additionality. Additionally, the baseline and monitoring methodology applied (ACM0002 v22.0) does not contain requirements for the investment analysis that are different from those described in this methodological tool.

Table 19: Applicability of CDM Tools to the grouped project.

3.1.2 Methodology deviations (if applicable)

No methodology deviations have been applied.

3.2 Project boundaries, sources and GHGs

3.2.1 Spatial limits of the project

Regarding the spatial limits of the project, ACM0002 states the following:

"The spatial extent of the project boundary includes the project power plant/unit and all power plants/units connected physically to the electricity system that the CDM project power plant is connected to."

Having this into account, the defined spatial extent of the project boundary encompasses both the physical site of each solar plant (i.e. geographical limits of each solar park) and all the power plants connected to the SADI, as shown in the figure below.

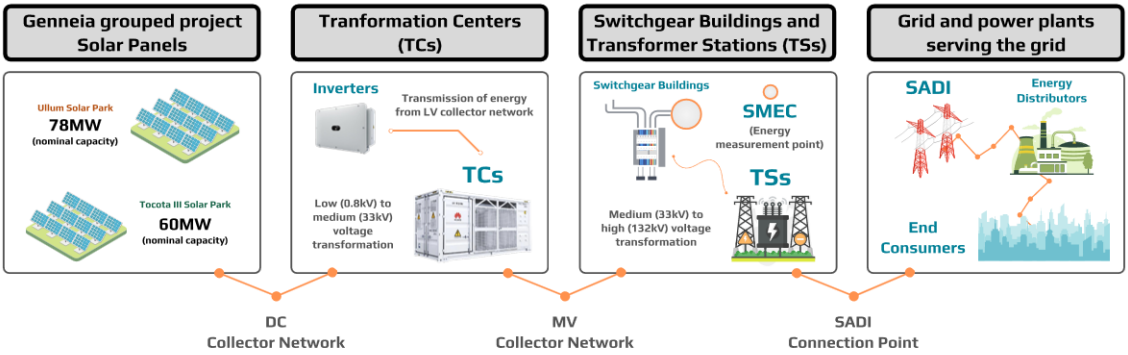

Figure 16: Diagram of project boundaries. Regarding both solar parks of Instance 01, the energy generated by the photovoltaic modules is collected by the DC current collector networks and transported to the inverters of each solar park, which are grouped into blocks and connected to transformation centers (TCs) to raise their voltage from low voltage to medium voltage (33kV). From the TCs, the energy is collected by the medium voltage (MV) network, which directs the energy to a switchgear building. This building houses underground 33 kV interconnection lines, as well as the necessary auxiliary service equipment for the plant, along with its control, protection, and measurement systems. The energy is then transmitted through these underground 33 kV interconnection lines to the medium-voltage busbars of each park's transformer station (TS), where it is finally evacuated into the SADI through high-voltage lines at the 132 kV level.

3.2.2 Carbon reservoirs and GHG sources

Source or reservoir		GHG	Included (Yes/No/Optional)	Justification
Baseline Emissions	CO_2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity.	CO_2	Yes	Main emissions source. Electricity generation in fossil-fuel fired power plants.
		CH_4	No	Minor emissions source - negligible
		N_2O	No	Minor emissions source - negligible
Project Emissions	Not Applicable. The photovoltaic panels represent a zero-emission technology.	CO_2	No	Not applicable.
		CH_4	No	Not applicable.
		N_2O	No	Not applicable.

Table 20: Carbon reservoirs and GHG sources encompassed within the project boundaries.

3.2.3 Time limits and analysis periods

3.2.3.1 Project start date

According to the definitions established in section 11.4 of the BCR Standard, projects can only be certified and registered with the BCR Program if the start date is within the five years prior to the start of validation.

Since this is a grouped project, this condition must be met by each instance and solar power plant of the project independently.

Instance 01:

PSSU received its commercial authorization to start operations on the 30th of March of 2023; therefore, this is the date where real action regarding GHG emission reductions begun for PSSU.

PSTO III received its commercial authorization to start operations on the 30th of December of 2023; therefore, this is the date where real action regarding GHG emission reductions begun for PSTO III.

CAMMESA Commercial authorizations for both solar parks of Instance 01 are attached in Annex 02 folder, that will be available to the CAB.

Future instances:

The start date of all future instances will be evaluated according to the definitions established in section 11.4 of the BCR Standard.

3.2.3.2 Quantification period of GHG emission reductions/removals

According to the definitions established in section 11.5 of the BCR Standard, the project length will be 21 years. Regarding the quantification periods, these will be 7-year periods that will be renewed a total of 2 times over the duration of the project.

3.2.3.3 Monitoring periods

The monitoring periods will be conducted annually, aiming to meet a closing date of December 31 of each calendar year, whenever possible.

3.3 Identification and description of the baseline or reference scenario

As per paragraph 27 of ACM0002 v22.0, if the project activity is the installation of a Greenfield power plant, the baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system" (TOOL07 v7.0). These calculations are shown in detail in section 3.7.3 (GHG emissions reduction/removal in the baseline scenario).

3.4 Additionality

As per ACM0002 v22.0, the additionality of the project activity shall be demonstrated and assessed using the TOOL01. Therefore, TOOL01 v7.0 (from now on, TOOL01) is used to demonstrate additionality as shown below.

Step 0: Demonstration whether the proposed project activity is the first-of-its-kind

Since, the proposed CDM project activity applies a measure that is listed in the definitions section of TOOL01, the methodological tool for additionality of first-of-its-kind project activities (TOOL23 v3.0 of CDM) should be used for demonstrating whether the proposed project activity is the first-of-its-kind.

As per paragraph 12 of TOOL23 v3.0, a proposed project activity is the first of its kind in Argentina if the project is the first that applies a technology that is different from technologies that are implemented by any other project, which are able to deliver the same output and have started commercial operation in Argentina before the start date of the proposed project activity. Since the proposed project activity is the generation of electricity by solar photovoltaic means and, in Argentina, other solar photovoltaic power plants started to operate before the implementation of this project, the project activity is not the first of its kind.

Outcome of Step 0:

The proposed project activity is not the first-of-its-kind.

Step 1: Identification of alternatives to the project activity consistent with current laws and regulations

Step 1a: Define alternatives to the project activity

The objective of this step is to identify all alternative scenarios that provide the same output as the proposed project activity. The identified alternative scenarios were two and are mentioned below.

Outcome of Step 1a:

Alternative Scenario 1 (AS1): The proposed project activity undertaken without being registered as a BCR project activity.

Alternative Scenario 2 (AS2): Continuation of the current situation (no project activity or other alternatives undertaken, e.g. thermal power plants), i.e., the electricity that is delivered to the grid by the project activity in the project scenario is generated by the operation of grid-connected power plants and by the addition of new generation sources in this scenario. As shown in section 3.3, this represents the Baseline Scenario.

Step 1b: Consistency with mandatory applicable laws and regulations

Both alternative scenarios follow all mandatory applicable laws and regulations, mainly those described in Section 4 below.

Outcome of Step 1b:

AS1 and AS2 follow all mandatory applicable laws and regulations.

Step 2: Investment analysis

The investment analysis should include all alternative scenarios remaining after Step 1. In this regard, AS2 is the baseline scenario and represents that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources. It is assumed that this scenario is economically or financially feasible, since it represents the "continuation of the current situation". Thus, an investment analysis will not be conducted for AS2. For AS1, an investment analysis is conducted to show that this scenario is not financially feasible.

Sub-step 2a: Determine appropriate analysis method

For conducting the investment analysis of AS1, the choice between the benchmark analysis, the investment comparison analysis, and the simple cost analysis is determined as follows:

- Paragraph 32 of TOOL01 states: "If the project activity and the alternatives identified in Step 1 generate no financial or economic benefits other than BCR related income, then apply the simple cost analysis."

  Simple cost analysis is not used here because the project activity generates financial or economic benefits beyond BCR-related income, such as the sale of the generated energy.

- When applying benchmark analysis or investment comparison analysis, the financial/economic analysis should be based on standard market parameters, considering the specific characteristics of the project type. These parameters should not be tied to the subjective profitability expectations or risk profile of a particular project developer. If a project can only be implemented by the project participant, the specific financial/economic situation of that company can be considered. However, since this grouped project involves the generation of solar photovoltaic energy delivered to the power grid, it is not an activity unique to Genneia, as other solar energy companies operate in the country. Therefore, standard market parameters are used as benchmarks for conducting the investment analysis.

- Regarding the choice between investment comparison analysis and benchmark analysis, for the purpose of simplification, the benchmark analysis is carried out for AS1 since the proposed project activity is developed as part of Genneia's renewable energy portfolio of technologies delivering electricity to the power grid, involving not only the generation of solar energy but also wind energy. Thus, sub-step 2b: Option III is used.

Sub-step 2b: Option III. Apply benchmark analysis

The latest approved version of the 'Methodological tool: Investment analysis', available on the UNFCCC website, is considered when applying this step, i.e. TOOL27 v14.0 of CDM (from now on, TOOL27) will be used to conduct the benchmark analysis of AS1.

In compliance to paragraph 12 of TOOL27, spreadsheet versions of all investment analysis, including the cashflow with all equations used and calculations made, will be available to the CAB in order to present the investment analysis in a transparent manner, to the extent that the reader can reproduce the results. This can be found in the file "Investment analysis - Base 0.xlsx" inside the folder "Investment Analysis" included in Annex 03 folder, that will be provided to the CAB.

The financial indicator used in the investment analysis is the post-tax project IRR. The purpose of the project IRR calculation is to determine the viability of the project. In this context, as per paragraph 16 of TOOL27 for investment analysis:

" Local commercial lending rates or WACC are appropriate benchmarks for a project IRR."

Therefore, the Weighted Average Cost of Capital (WACC) based on standard market values is the indicator chosen as benchmark to compare with the post-tax project IRR in nominal terms. The WACC formula, obtained from TOOL27, includes the following parameters:

$$WACC = r_e \times W_e + r_d \times (1 - T_c) \times W_d$$

Where:

r_e = Cost of equity (-)

W_e = Proportion of financing that is equity (-)

r_d = Cost of debt (-)

W_d = Proportion of financing that is debt (-)

T_c = Corporate tax rate (-)

Since the project IRR for each solar park was calculated in nominal terms, the WACC must also be calculated in nominal terms, as mentioned in paragraph 17 of TOOL27:

"In situations where an investment analysis is carried out in nominal terms and the available IRR benchmarks are in real terms, project participants shall convert the real term values of benchmarks to nominal values by adding the inflation rate."

Additionally, as per paragraph 10 of TOOL27:

"The input values used in the investment analysis and the benchmark shall be valid and applicable at the time of the investment decision taken by the project participant."

Therefore, since the investment decision was made at different dates for PSSU and PSTO III, two different WACCs should be calculated.

PSSU

The investment decision date is September 30, 2021, corresponding to the approval of the Base 0 Date (BoD), as indicated in the file "BoD – PSSU.pdf" inside the folder "Investment Analysis" included in Annex 03 folder, that will be provided to the CAB. Regarding the point of no return, the no-return date was the date on which the Tracker purchase contract was issued, by which time the Inverter purchase had already been initiated. Together, these investments account for approximately 20% of the solar park's CAPEX, marking a point of no return. The Inverter purchase contract was issued on December 28, 2021, and the Tracker purchase contract was issued on January 20, 2022, with the latter date considered the point of no return for this solar park. Within the "Punto de no retorno" folder inside the "Investment analysis" folder included in Annex 03 folder, excerpts from these contracts are available to support these dates.

For the case of the cost of equity used for the WACC used as benchmark, paragraph 20 of TOOL27 states that if the benchmark is based on parameters that are standard in the market, the cost of equity can be determined by selecting the values provided in the tool's Appendix. Thus, default values for cost of equity (expected returns on equity) given in the appendix of TOOL27 were used for the WACC. This default value was taken from Group 1 (Energy industries) – Country: Argentina, and its value is 24.01%. Since this parameter was calculated in real terms (r_{eR}), it was converted to nominal terms to determine the final cost of equity (r_e). The following formula was used for this conversion:

$$\text{Nominal cost of equity } (r_e) = (1 + r_{eR}) * (1 + IR) - 1$$

Where:

r_{eR} = Cost of equity in real terms (-)

IR = Inflation rate (-)

The average forecasted inflation rate for the United States, as published by the IMF (International Monetary Fund World Economic Outlook) for the period 2022 to 2026, was used, with a value of 3.82% (file "Inflation Rate IMF.xlsx" inside the folder "Investment Analysis" included in Annex 03 folder). This inflation rate was determined in accordance with paragraph 17 of TOOL27:

"…the average forecasted inflation rate for the host country published by the IMF (International Monetary Fund World Economic Outlook) or the World Bank for the next five years after the start of the project activity shall be used."

With these parameters, the r_e for PSSU was calculated, and its value is shown below:

$$\mathbf{r_e\ (benchmark\ value) = (1 + 0.2401) * (1 + 0.0382) - 1 = 0.2875}$$

For the case of the cost of debt used for the WACC, paragraph 25 of TOOL27 states that if the benchmark is based on parameters that are standard in the market, the cost of debt should be calculated as the cost of financing in the capital markets (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on documented evidence from financial institutions with regard to the cost of debt financing of comparable projects. In this context, the cost of debt was determined based on the average dollarized international commercial lending rates for Argentina in August 2021 (the month preceding the investment decision in September 2021). These rates were obtained from the "Banco Central de la República Argentina" (highlighted in yellow on page 6 of the file *"Cost of Debt (BCRA).pdf"*[D] inside the folder "Investment Analysis" included in Annex 03 folder), that will be provided to the CAB), serving as a national benchmark for the market cost of debt (it is important to note that this rate is in nominal terms):

$$\mathbf{r_d\ (benchmark\ value) = 4.89\ \% = 0.0489}$$

For the case of the proportion of financing that are equity and debt, paragraph 27 of TOOL27 states that if the benchmark is based on parameters that are standard in the market, then the typical debt/equity finance structure observed in the sector of the country should be used.

[D] https://www.bcra.gob.ar/noticias/Boletin-estadistico-1223.asp

In this regard, information about financial structure of companies in the sector was used. An average of debt/equity finance structure was made using financial information from the following companies: Pampa Energía Soluciones S.A., Aluar Aluminio Argentino S.A.I.C., 360 Energy Solar S.A. and YPF Energía Eléctrica S.A. The sources used to obtain this information, along with the corresponding values and calculations, are included in Annex 03 (the files are referenced under the tab "We & Wd" within the spreadsheet *"Investment analysis - Base 0.xlsx"* inside the folder "Investment Analysis" included in Annex 03 folder). The resulting proportions of equity and debt financing are detailed below:

$$\mathbf{W_e = 42.62\% = 0.4262}$$

$$\mathbf{W_d = 57.38\% = 0.5738}$$

It is worth noting that these estimates represent a conservative approach compared to the standard values given by TOOL27 at the end of paragrah 27:

"If information about typical debt/equity finance structure observed in the sector is not readily available, 50 per cent debt and 50 per cent equity financing may be assumed."

For the case of the corporate tax rate, the value of the income tax in Argentina used is 35%, based on law 27,430, as shown in the "Sources – [Solar Park Name]" tabs of spreadsheet "Investment analysis - Base 0.xlsx", that is available inside the folder "Investment Analysis" included in Annex 03 folder. Thus, the corporate tax rate is 0.35.

Taking into account all the above, the result of the WACC used as a benchmark is shown below:

$$\text{WACC (benchmark)} = 0.2875 \times 0.4262 + 0.0489 \times (1 - 0.35) \times 0.5738 = 0.1408$$

WACC (benchmark) = 14.08%

PSTO III

The investment decision date is September 29, 2022, corresponding to the approval of the Base 0 Date (BoD), as indicated in the file "BoD – PSTO III.pdf" inside the folder "Investment Analysis" included in Annex 03 folder, that will be provided to the CAB. Regarding the point of no return, the no-return date was the date on which the Tracker purchase contract was issued, by which time the Inverter purchase had already been initiated.

Together, these investments account for approximately 20% of the solar park's CAPEX, marking a point of no return. The Inverter purchase contract was issued on October 4, 2022, and the Tracker purchase contract was issued on October 13, 2022, with the latter date considered the point of no return for this solar park. Within the "Punto de no retorno" folder inside the "Investment analysis" folder included in Annex 03 folder, excerpts from these contracts are available to support these dates.

For the case of the cost of equity used for the WACC used as benchmark, paragraph 20 of TOOL27 states that if the benchmark is based on parameters that are standard in the market, the cost of equity can be determined by selecting the values provided in the tool's Appendix. Thus, default values for cost of equity (expected returns on equity) given in the appendix of TOOL27 were used for the WACC. This default value was taken from Group 1 (Energy industries) – Country: Argentina, and its value is 24.01%. Since this parameter was calculated in real terms (r_{eR}), it was converted to nominal terms to determine the final cost of equity (r_e). The following formula was used for this conversion:

$$\text{Nominal cost of equity } (r_e) = (1 + r_{eR}) * (1 + IR) - 1$$

Where:

r_{eR} = Cost of equity in real terms (-)

IR = Inflation rate (-)

The average forecasted inflation rate for the United States, as published by the IMF (International Monetary Fund World Economic Outlook) for the period 2023 to 2027, was used, with a value of 2.64% (file "Inflation Rate IMF.xlsx" available inside the "Investment analysis" folder included in Annex 03 folder). This inflation rate was determined in accordance with paragraph 17 of TOOL27:

"…the average forecasted inflation rate for the host country published by the IMF (International Monetary Fund World Economic Outlook) or the World Bank for the next five years after the start of the project activity shall be used."

With these parameters, the nominal re for PSSU was calculated, and its value is shown below:

$$\mathbf{r_e\ (benchmark\ value) = (1 + 0.2401) * (1 + 0.0264) - 1 = 0.2728}$$

For the case of the cost of debt used for the WACC, paragraph 25 of TOOL27 states that if the benchmark is based on parameters that are standard in the market, the cost of debt should be calculated as the cost of financing in the capital markets (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on documented evidence from financial institutions with regard to the cost of debt financing of comparable projects. In this context, the cost of debt was determined based on the average dollarized international commercial lending rates for Argentina in August 2022 (the month preceding the investment decision in September 2022). These rates were obtained from the "Banco Central de la República Argentina" (highlighted in green on page 6 of the file *"Cost of Debt (BCRA).pdf"* available inside the "Investment analysis" folder included in Annex 03 folder), serving as a national benchmark for the market cost of debt (it is important to note that this rate is in nominal terms):

r_d (benchmark value) = 5.31 % = 0.0531

For the case of the proportion of financing that are equity and debt, paragraph 27 of TOOL27 states that if the benchmark is based on parameters that are standard in the market, then the typical debt/equity finance structure observed in the sector of the country should be used. In this regard, information about financial structure of companies in the sector was used. An average of debt/equity finance structure was made using financial information from the following companies: Pampa Energía Soluciones S.A., Aluar Aluminio Argentino S.A.I.C., 360 Energy Solar S.A. and YPF Energía Eléctrica S.A. The sources used to obtain this information, along with the corresponding values and calculations, are included in Annex 03 (the files are referenced under the tab "We & Wd" within the spreadsheet *"Investment analysis - Base 0.xlsx"* inside the "Investment analysis" folder included in Annex 03 folder). The resulting proportions of equity and debt financing are detailed below:

W_e = 48.67% = 0.4867

W_d = 51.33% = 0.5133

It is worth noting that these estimates represent a conservative approach compared to the standard values given by TOOL27 at the end of paragrah 27:

"If information about typical debt/equity finance structure observed in the sector is not readily available, 50 per cent debt and 50 per cent equity financing may be assumed."

For the case of the corporate tax rate, the value of the income tax in Argentina used is 35%, based on law 27,430, as shown in the "Sources – [Solar Park Name]" tabs of spreadsheet "Investment analysis - Base 0.xlsx", that is available inside the "Investment analysis" folder included in Annex 03 folder. Thus, the corporate tax rate is 0.35.

Taking into account all the above, the result of the WACC used as a benchmark is shown below:

$$\text{WACC (benchmark)} = 0.2728 \times 0.4867 + 0.0531 \times (1 - 0.35) \times 0.5133 = 0.1505$$

WACC (benchmark) = 15.05%

Sub-step 2c: Calculation and comparison of financial indicators

In the investment analysis conducted for PSSU to determine the post-tax project IRR in nominal terms, the average forecasted inflation rate for the United States, as published by the IMF (International Monetary Fund World Economic Outlook) for the period 2022 to 2026, was used, with a value of 3.82% (file "Inflation Rate IMF.xlsx" available inside the "Investment analysis" folder included in Annex 03 folder), as previously used for calculating the r_e for the WACC.

After conducting the investment analysis, which is detailed in a separate annex available to the CAB during validation (refer to the "IRR – PSSU" tab within the "Investment analysis - Base 0.xlsx" spreadsheet), the post-tax project IRR for PSSU is presented below:

Post-tax project IRR for PSSU = 9.01%

A list of all inputs utilized for conducting the investment analysis, along with its values and corresponding references, is included in the table below:

Input	Unit	Value	Reference
Energy Price (PPA)	US$/MWh	63.85	Higher tariff between January 2021 and August 2021obtained from Economic Transaction Documents (DTEs) generated by CAMMESA and available only to MEM agents (Genneia is one of them).
Production 1st Year	GWh	200.42	Energy generation was forecasted based on a P50 assessment. This analysis is part of a solar resource assessment conducted by a qualified third party (ENERTIS) contracted by Genneia for this purpose.
Production Degradation	%	0.40	Based on the solar resource assessment conducted by ENERTIS.
Capex	MUS$	-68.87	Based on market CAPEX values reported for year 2020 by the International Renewable Energy Agency (IRENA) and backed up by quotations received for expenses related to equipment (panels, trackers, inverters and TCs, cables, transportation, 33kV cells, control systems, meteorological station, SOTR), construction works (electrical, mechanical, civil, and for O&M), and other related costs.

Opex	MUS$	-1.53	Based on the Opex of another Genneia solar park -Ullum I- which was operating at the time of the investment decision.
Opex anual adj. (Inflation rate)	%	3.82	Average forecasted inflation rate for the United States, as published by the IMF (International Monetary Fund World Economic Outlook) for the period 2022 to 2026.
D&A	years	25.00	Based on the linear performance warranty given by JINKO (provider of solar panels).
Turnover Tax & Other	%	1.50	Based on Ley 2188-I - 2021 from the Province of San Juan, Argentina.
Debit & Credit Tax	%	0.60	Based on Ley N° 25.413 from Argentina.
Income Tax	%	35.00	Based on Ley N° 27.430 from Argentina.

Table 21: Inputs utilized for conducting the investment analysis for PSSU. All the documents related to the references used to determine each input value are available in Annex 03 folder which will be provided to the CAB.

In the investment analysis conducted for PSTO III to determine the post-tax project IRR in nominal terms, the average forecasted inflation rate for the United States, as published by the IMF (International Monetary Fund World Economic Outlook) for the period 2023 to 2027, was used, with a value of 2.64% (file "Inflation Rate IMF.xlsx" available in Annex 03 folder), as previously used for calculating the r_e for the WACC.

After conducting the investment analysis, which is detailed in a separate annex available to the CAB during validation (refer to the "IRR – PSTO III" tab within the "Investment analysis - Base 0.xlsx" spreadsheet), the post-tax project IRR for PSTO III is presented below:

Post-tax project IRR for PSTO III = 10.89%

A list of all inputs utilized for conducting the investment analysis, along with its values and corresponding references, is included in the table below:

Input	Unit	Value	Reference
Energy Price (PPA)	US$/MWh	62.00	Higher tariff between January 2022 and August 2022obtained from Economic Transaction Documents (DTEs) generated by CAMMESA and available only to MEM agents (Genneia is one of them).
Production 1st Year	GWh	185.02	Energy generation was forecasted based on a P50 assessment. This analysis is part of a solar resource assessment conducted by a qualified third party (ENERTIS) contracted by Genneia for this purpose.
Production Degradation	%	0.40	Based on the solar resource assessment conducted by ENERTIS.
Capex	MUS$	-51.42	Based on market CAPEX values reported for year 2021 by the International Renewable Energy Agency (IRENA) and backed up by quotations received for expenses related to equipment (panels, trackers, inverters and TCs, cables, transportation, 33kV cells, control systems, meteorological station, SOTR), construction works (electrical, mechanical, civil, and for O&M), and other related costs.
Opex	MUS$	-1.49	Based on the Opex of another Genneia solar park -Ullum I- which was operating at the time of the investment decision.
Opex anual adj. (Inflation rate)	%	2.64	Average forecasted inflation rate for the United States, as published by the IMF (International Monetary Fund World Economic Outlook) for the period 2023 to 2027.
D&A	years	25.00	Based on the linear performance warranty given by JINKO (provider of solar panels).

Turnover Tax & Other	%	1.50	Based on Ley 2188-I - 2021 from the Province of San Juan, Argentina.
Debit & Credit Tax	%	0.60	Based on Ley Nº 25.413 from Argentina.
Income Tax	%	35.00	Based on Ley Nº 27.430 from Argentina.

Table 22: Inputs utilized for conducting the investment analysis for PSTO III. All the documents related to the references used to determine each input value are available in Annex 03 folder which will be provided to the CAB.

The comparison of the project IRRs with their corresponding benchmarks is shown below:

Solar Park	Post-tax Project IRR	WACC Benchmark	Absolute difference
PSSU	9.01%	14.08%	5.07%
PSTO III	10.89%	15.05%	4.16%

Table 23: Total Comparison between chosen financial indicator (post-tax project IRR) and chosen benchmark.

Since the project activity exhibits less favorable indicators (e.g., lower IRRs) than the respective benchmarks, it cannot be considered financially attractive.

Sub-step 2d: Sensitivity analysis

As per paragraph 43 of TOOL01 and section 7 of TOOL27, a sensitivity analysis shall be performed to assess whether the conclusion regarding the financial attractiveness is robust to reasonable variations in the critical assumptions.

In this regard, paragraph 32 of TOOL27 states that as a general point of departure variations in the sensitivity analysis should at least cover a range of +10 percent and –10 percent. Thus, the sensitivity analysis was carried out covering a range of 10% for the generated energy (energy produced), the operational expenditures (Opex), the capital expenditures (Capex), and the Private Purchase Agreements (PPA) prices (Energy prices). This analysis is included in the spreadsheet “Investment analysis - Base 0.xlsx” available inside the "Investment analysis" folder included in Annex 03 folder , and results are shown below:

Sensitivity Analysis	Post-tax project IRR			WACC - IRR*		
Parameters analyzed	-10%	0%	10%	-10%	0%	10%
	PSSU					
Energy produced	7,82%	9,01%	10,14%	6,25%	5,07%	3,94%
Opex	9,22%		8,79%	4,85%		5,28%
Capex	10,19%		8,01%	3,89%		6,07%
PPA Price	7,82%		10,14%	6,25%		3,94%
	PSTO III					
Energy produced	9,75%	10,89%	12,27%	5,30%	4,16%	2,78%
Opex	11,26%		10,82%	3,79%		4,23%
Capex	12,54%		9,75%	2,51%		5,30%
PPA Price	9,75%		12,27%	5,30%		2,78%

* If WACC - IRR ≥ 0% for every comparison, the sensitivity analysis is conclusive to confirm the result of the benchmark analysis.

Table 24: Sensitivity analysis for solar parks of Instance 01 of the grouped project.

It is worth noting that all the possible scenarios analyzed are below the WACC or benchmark value for each solar park , thus sensitivity analysis is conclusive to confirm the result of the benchmark analysis.

Outcome of Step 2:

For AS1, the returns of each solar park of Instance 01 of the project (9.01% for PSSU and 10.89% for PSTO III) are lower than the WACCs used as benchmark (14.08% for PSSU and 15.05% for PSTO III) and the sensitivity analysis is conclusive to confirm the result of the benchmark analysis. Therefore, this grouped project does not result financially viable without the benefits of verified carbon credits (VCC), and the project activity is additional according to investment analysis.

Since this project activity is not the first-of-its-kind, a common practice analysis shall be conducted (See Step 4).

Step 3: Barrier analysis

This step was not implemented for this grouped project because, according to paragraph 44 of TOOL01:

"If after the sensitivity analysis it is concluded that: (1) the proposed CDM project activity is unlikely to be the most financially/economically attractive (as per Step 2c) or is unlikely to be financially/economically attractive (as per Step 2c), then proceed to Step 4 (Common practice analysis)."

Step 4: Common practice analysis

Since, according to step 4a, the proposed project activity applies measures that are listed in the definitions section of TOOL01, specifically, power generation based on renewable energy, the methodological tool for common practice (TOOL24, v03.1 of CDM, from now on TOOL24) is used to address whether the proposed project activity is a common practice.

Step 1: calculate applicable capacity or output range as +/-50% of the total design capacity or output of the proposed project activity.

The output range was calculated for each solar photovoltaic park. The results are shown in the table below.

Solar Park	Installed capacity (MW)	-50%	+50%
PSSU	78	39	117
PSTO III	60	30	90

Table 25: Total design capacity +/- 50% range for each solar park of the instance 01 of the grouped project.

Step 2: identify similar projects (both CDM and non-CDM) which fulfil all of the following conditions:

(a) The projects are located in the applicable geographical area; (b) The projects apply the same measure as the proposed project activity; (c) The projects use the same energy source/fuel and feedstock as the proposed project activity, if a technology switch measure is implemented by the proposed project activity; (d) The plants in which the projects are implemented produce goods or services with comparable quality, properties and applications areas (e.g. clinker) as the proposed project plant; (e) The capacity or output of the projects is within the applicable capacity or output range calculated in Step 1; (f) The projects started commercial operation before the project design document (CDM-PDD) is published for global stakeholder consultation or before the start date of proposed project activity, whichever is earlier for the proposed project activity.

Data reported by CAMMESA[E] (excel files mentioned in E can be found inside the "Common Practice Analysis" folder included in Annex 03 folder, which will be available to the CAB) was used for the identification of similar projects. Projects were identified as similar if they are located in Argentina (a); applying the same measure as the proposed project activity (b) that consists of the use of solar photovoltaic energy as source (c); producing electrical energy as a result of the activity, which is injected into the SADI with quality, properties, and application areas comparable to the plants of each solar park of the grouped project (d); whose capacity is within the range calculated in sub-step 1 for each solar park of the grouped project (e); and whose start of commercial operations was prior to the start date of the activities of each solar park of the grouped project (f). The table below shows the identified similar projects.

PSSU

#	Power Plant	Region	Generation Source - Technology	Installed Capactiy [MW]	Commercial Authorization Date
1	PQUE SOLAR FTV CAUCHARI 1	NOROESTE	Renewable - Solar	100	September 10, 2020
2	PQUE SOLAR FTV CAUCHARI 2	NOROESTE	Renewable - Solar	100	September 10, 2020
3	PQUE SOLAR FTV CAUCHARI 3	NOROESTE	Renewable - Solar	100	September 10, 2020
4	PQUE FOTOV. COR. SOL. GUAÑI.II	CUYO	Renewable - Solar	100	July 17, 2021
5	PQUE SOLAR LA PUNA SOLAR	NOROESTE	Renewable - Solar	100	October 2, 2021
6	PQUE SOLAR ALTIPLANO I	NOROESTE	Renewable - Solar	100	October 5, 2021
7	PARQUE FOTOV. CAFAYATE	NOROESTE	Renewable - Solar	80	July 19, 2019
8	PQUE FOTOV. CORDILLERA SOLAR	CUYO	Renewable - Solar	80	March 27, 2019

Table 26: Similar projects identified that fulfill all the conditions stated in step 2 for PSSU. There were no CDM projects nor voluntary carbon market projects identified within similar projects.

[E] The historical reports published by CAMMESA can be accessed through the following link: https://cammesaweb.cammesa.com/informe-sintesis-mensual/. Specifically, the database file "BASE_INFORME_MENSUAL.zip" was downloaded, and the spreadsheet "Potencia instalada.xlsx," located within the "Bases_Oferta_INFORME_MENSUAL" folder, was used. This file served as the basis for filtering data according to common practice criteria, resulting in the attached Excel files: "PSSU - Potencias Instaladas CAMMESA.xlsx" and "PSTO III - Potencias Instaladas CAMMESA.xlsx.", that are provided in Annex 03 and which were used to generate the tables included in this section.

PSTO III

#	Power Plant	Region	Generation Source - Technology	Installed Capactiy [MW]	Commercial Authorization Date
1	PARQUE FOTOV. CAFAYATE	NOROESTE	Renewable - Solar	80	July 19, 2019
2	PQUE FOTOV. CORDILLERA SOLAR	CUYO	Renewable - Solar	80	March 27, 2019
4	PQUE FOTOVOLTAICO NONOGASTA	NOROESTE	Renewable - Solar	35	Previous than 2019
5	PQUE SOLAR ULLUM 3	CUYO	Renewable - Solar	32	Previous than 2019

Table 27: Similar projects identified that fulfill all the conditions stated in step 2 for PSTO III. CDM projects and voluntary carbon market projects are highlighted in blue.

Step 3: within the projects identified in Step 2, identify those that are neither registered CDM project activities, project activities submitted for registration, nor project activities undergoing validation. Note their number, N_{all}.

The tables below show the projects from Tables 26 & 27 that constitute N_{all}, after excluding those projects that are CDM or voluntary carbon market projects (highlighted in blue in Tables 26 & 27).

PSSU

#	Power Plant	Region	Generation Source - Technology	Installed Capactiy [MW]	Commercial Authorization Date
1	PQUE SOLAR FTV CAUCHARI 1	NOROESTE	Renewable - Solar	100	September 10, 2020
2	PQUE SOLAR FTV CAUCHARI 2	NOROESTE	Renewable - Solar	100	September 10, 2020
3	PQUE SOLAR FTV CAUCHARI 3	NOROESTE	Renewable - Solar	100	September 10, 2020
4	PQUE FOTOV. COR. SOL. GUAÑI.II	CUYO	Renewable - Solar	100	July 17, 2021
5	PQUE SOLAR LA PUNA SOLAR	NOROESTE	Renewable - Solar	100	October 2, 2021
6	PQUE SOLAR ALTIPLANO I	NOROESTE	Renewable - Solar	100	October 5, 2021
7	PARQUE FOTOV. CAFAYATE	NOROESTE	Renewable - Solar	80	July 19, 2019
8	PQUE FOTOV. CORDILLERA SOLAR	CUYO	Renewable - Solar	80	March 27, 2019

Table 28 (previous page): Similar projects identified that fulfill the condition stated in step 3 for PSSU[F].

PSTO III

#	Power Plant	Region	Generation Source - Technology	Installed Capactiy [MW]	Commercial Authorization Date
1	PARQUE FOTOV. CAFAYATE	NOROESTE	Renewable - Solar	80	July 19, 2019
2	PQUE FOTOV. CORDILLERA SOLAR	CUYO	Renewable - Solar	80	March 27, 2019
3	PQUE FOTOVOLTAICO NONOGASTA	NOROESTE	Renewable - Solar	35	Previous than 2019

Table 29: Similar projects identified that fulfill the condition stated in step 3 for PSTOIII.

According to Tables 28 & 29, N_{all} = 8 for PSSU and N_{all} = 3 for PSTO III.

Step 4: within similar projects identified in Step 3, identify those that apply technologies that are different to the technology applied in the proposed project activity. Note their number, N_{diff}.

The value of N_{diff} was obtained by summing those plants in Tables 28 & 29 (for PSSU and PSTO III respectively) whose technology is different to the technology used by this grouped project according to the definitions of TOOL24. Technologies were considered different if the project uses solar photovoltaic energy as the source of power generation but is part of the "Electricity Supply Program from Renewable Sources" or "RenovAR".

This is defined according to paragraph 12 (d)(ii), (iii) and (iv) of Tool 24, as projects awarded in RenovAR have a different investment climate than this grouped solar project, which involves Private Power Purchase Agreements (PPAs) made under the Renewable Energy Electricity Term Market or "MATER" regime, for both PSSU and PSTO III[G].

[F] Projects that use solar photovoltaic energy as generation source and are part of RenovAR program (see step 4) are highlighted in yellow. Information about RenovAR projects was obtained from its official project database:https://public.tableau.com/app/profile/datosenergia/viz/AdjudicacionesRenovARMINEMArgentina/AdjudicacionesRenovArArgentina.

[G] Evidence of the participation of both solar parks in the MATER is provided in the spreadsheet "Prioridad de Despacho – Proyectos Asignados Trimestralmente.xlsx" (rows 31, 42 and 43, highlighted in yellow), which is available in Annex 03 and will be provided to the CAB. This spreadsheet was downloaded from the results of dispatch assignation priority of MATER regime, available in the CAMMESA website, specifically the following link: https://cammesaweb.cammesa.com/mater-resultado-asignacion-prioridad-despacho/.

As previously explained in Section 2, MATER involves higher financial risk than RenovAR due to the absence of state-backed guarantees; risks associated with not having secured grid dispatch; and the lack of a subsidized tariff, which results in a reliance on market conditions. Consequently, the difference between RenovAR and MATER in terms of investment climate can be summarized as follows:

- **12(d)(ii):** RenovAR features a higher energy price because it is subsidized as part of the program, whereas MATER does not include such subsidies since the energy price is determined through an agreement between the energy generator and a private buyer.

- **12(d)(iii):** In the case of MATER, the promotional aspect lies in Law 27,191, which requires large energy users to obtain 20% of their energy from renewable sources; one option to meet this requirement is to purchase energy through MATER contracts.

- **12(d)(iv):** Both regimes have their own terms and conditions for inclusion and exclusion. The footnotes in Section 2 of the PD provide detailed information on the operation of each regime, including the legal requirements for participation.

According to these definitions and based on Tables 28 & 29 (for PSSU and PSTO III respectively), Ndiff = 8 for PSSU, and Ndiff = 3 for PSTO III.

Step 5: calculate factor $F=1-N_{diff}/N_{all}$ representing the share of similar projects (penetration rate of the measure/technology) using a measure/technology similar to the measure/technology used in the proposed project activity that deliver the same output or capacity as the proposed project activity. The proposed project activity is a "common practice" within a sector in the applicable geographical area if the factor F is greater than 0.2 and $N_{all}-N_{diff}$ is greater than 3.

The following table shows the results of calculations made to establish the values of the parameters stated in step 5.

Solar Park	N_{all}	N_{diff}	F	$N_{all}-N_{diff}$
PSSU	8	8	0	0
PSTO III	3	3	0	0

Table 30: Results of calculations demonstrating common practice additionality for both PSSU and PSTO III solar parks.

Outcome of Step 4:

Based on Table 30, the proposed project activity is not a common practice for either PSSU or PSTO III, therefore, the proposed project activity is additional according to common practice analysis.

Having followed all the steps indicated in TOOL01|, the grouped solar project meets all additionality conditions; therefore, the grouped solar project is additional.

3.5 Uncertainty management

The GHG emissions of the baseline scenario are based on CDM tool to calculate the emission factor of the electric grid (TOOL07 v7.0). On the other hand, project's emission reduction calculations are based on CDM methodology ACM0002 v22.0.

In line with the principle of conservative attitude, TOOL07 and ACM0002 use conservative assumptions, values, and procedures to ensure that there is not overestimation of emission reductions or increases in GHG removals, applying mechanisms to manage uncertainty in the quantification of baseline and mitigation results.

3.6 Leakage and non-permanence

Not applicable as per paragraph 71 of ACM0002 v22.0.

3.7 Mitigation results

The mitigation results achieved through the implementation of this grouped project are verifiable in accordance with the ISO 14064-3:2019 Standard.

3.7.1 Eligible areas within GHG project boundaries (AFOLU sector projects)

Not applicable.

3.7.2 Stratification (Projects in the AFOLU sector)

Not applicable.

3.7.3 GHG baseline emissions

As per paragraph 57 of ACM0002 v22.0, baseline emissions include only CO_2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and/or the addition of new grid-connected power plants. The baseline emissions are to be calculated as follows:

$$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$$

Where:

BE_y = Baseline emissions in year y (tCO_2/yr)

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh/yr)

$EF_{grid,CM,y}$ = Combined margin CO_2 emission factor for grid connected power generation in year y calculated using TOOL07 (tCO_2/MWh)

As per paragraph 59 of ACM0002 v22.0, calculation of quantity of net electricity generation ($EG_{PJ,y}$) shall be calculated as follows:

$$EG_{PJ,y} = EG_{facility,y}$$

Where:

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and supplied to the grid as a result of the implementation of the BCR project activity in year y (MWh/yr).

$EG_{facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr)

Taking this into account, if the net electricity supplied to the grid by each solar park in Instance 01 ($EG_{facility,y}$) is multiplied by the weighted average CM emission factor, the estimated rounded annual baseline emissions for each solar park in Instance 01 are obtained. Please note that the plant load factor and energy generation have been determined by a qualified third party (ENERTIS) contracted by Genneia for this purpose. Energy generation was forecasted based on a P50 assessment. This analysis is part of a solar resource assessment conducted by ENERTIS for each solar park, detailed in the files included in Annex 04 folder, which will be available for review by the CAB. This is a requirement established according to CDM Guidelines for Reporting and Validation of Plant Load Factors, Version 01.

The "Tool to calculate the emission factor for an electricity system", TOOL07 v7.0 (from now on, TOOL07), was used to calculate the combined margin (CM) and estimate baseline emissions. The procedure is shown below:

Step 1: Identify the relevant electricity systems

The proposed project activity spatial extent is determined as the Argentina electricity interconnected grid, namely "Sistema Argentino de Interconexión" (SADI). The wholesale electricity market (Mercado Eléctrico Mayorista, MEM) operates within the SADI. Thus, Option 2 is selected: a delineation of the project electricity system defined by the dispatch area of the dispatch centre responsible for scheduling and dispatching electricity generated by the project activity.

Step 2: Choose whether to include off-grid power plants in the project electricity system

Off-grid power plants are not included since these plants are not subject to the MEM rules. Thus, Option I is selected: only grid power plants are included in the calculation.

Step 3: Select a method to determine the operating margin (OM)

According to the flow chart shown in Figure 2 and to paragraph 40(a) of TOOL07, the simple OM method can be used if low-cost/must-run (LCMR) resources constitute less than 50 per cent of total grid generation (excluding electricity generated by off-grid power plants) in average of the five most recent years, determined by using the following equation (Approach 1):

$$\text{Share}_{LCMR} = \text{average}\left[\frac{EG_{LCMR_{y-4}}}{total_{y-4}}, \ldots, \frac{EG_{LCMR_y}}{total_y}\right]$$

Where:

Share_{LCMR} = Share of the low cost/must run resources (per cent)

EG_{LCMR_y} = Electricity generation supplied to the project electricity system by the low cost/must run resources in year y (GWh)

$total_y$ = Total electricity generation supplied to the project electricity system in year y (GWh)

y = The most recent year for which data is available

This is the situation for the SADI in Argentina as shown in the table below:

Energy generation (GWh)	Year				
	2019	2020	2021	2022	2023
Thermal	80,691	82,271	90,074	81,751	73,018
Hidraulic	36,832	30,350	24,116	30,186	39,332
Nuclear	7,927	10,011	10,170	7,469	8,963
Renewable	5,796	10,755	17,437	19,340	20,085
Importation	2,746	1,204	819	6,310	6,241
$total_y$	133,992	134,591	142,616	145,057	147,638
Total without LCMR	83,438	83,475	90,893	88,061	79,259
$EGLCMR_y$	50,555	51,116	51,723	56,996	68,380
LCMR (%)	37.73	37.98	36.27	39.29	46.32
$Share_{LCMR}$	40 %				

Table 31 (previous page): Percentage of contribution of LCMR resources to the total grid generation (SADI). Source: "Calculation of the CO_2 Emission Factor of the Argentine Electric Power Grid" from the Argentine Secretariat of Energy[H], a spreadsheet named "Emission Factors Calculation.xlsx" is available on Annex 05.

Having into account that the $Share_{LCMR}$ is equal to 40%, the simple operating margin (Simple OM) is used.

Regarding the data vintage for calculating the simple OM, the ex-ante option was chosen if the *ex-ante* option is chosen, which means that the emission factor is determined once at the validation stage, thus no monitoring and recalculation of the emissions factor during the quantification period is required. Since the solar power plants are connected to the grid, a 3-year generation-weighted average is used, based on the most recent data available at the time of submission of the PD to the CAB for validation.

Step 4: Calculate the operating margin emission factor according to the selected method

The simple OM used was obtained from the Argentine Secretariat of Energy, which calculates this parameter based on TOOL07, following Option B of Step 4: Calculation based on total fuel consumption and electricity generation of the system, since:

(i) The necessary data for Option A is not available; and

(ii) Only nuclear and renewable power generation are considered as lowcost/must-run power sources and the quantity of electricity supplied to the grid by these sources is known; and

(iii) Off-grid power plants are not included in the calculation (Option I has been chosen in Step 2).

Calculation of *ex-ante* simple OMs for each of the three years in the data vintage (2021, 2022, and 2023) is available in the "4 a) Simple OM 2007-2023" and "Resumen Factores" tabs of the spreadsheet "Emission Factors Calculation.xlsx" provided in Annex 05 folder, that will be available to the CAB. This data was obtained from the Argentine Secretariat of Energy[H].

[H] Latest dataset available at the time of validation was used: http://datos.energia.gob.ar/dataset/calculo-del-factor-de-emision-de-co2-de-la-red-argentina-de-energia-electrica?_gl=1*r48hgi*_gcl_au*MjEwNTEwMDE2Ni4xNzIyODczMzA2

Simple OM_{2021} = **0.459** tCO_2/MWh ; Simple OM_{2022} = **0.450** tCO_2/MWh ; Simple OM_{2023} = **0.429** tCO_2/MWh

$EF_{grid,OMsimple,2021\text{-}2023}$ is obtained as the generation-weighted average for these three years as shown in "4 a) Simple OM 2007-2023" tab of the spreadsheet "Emission Factors Calculation.xlsx" provided in Annex 05 folder:

$$\mathbf{EF_{grid,OMsimple,2021\text{-}2023} = 0.447\ tCO_2/MWh}$$

Step 5: Calculate the build margin (BM) emission factor

Option 1 is chosen for the first quantification period to calculate the BM emission factor *ex ante* based on the most recent information available on units already built for the sample group *m* at the time of PD submission to the CAB for validation. For the second quantification period, the BM emission factor will be updated based on the most recent information available on units already built at the time of submission of the request for renewal of the quantification period to the CAB. For the third quantification period, the BM emission factor calculated for the second quantification period will be used. It is worth noting that this option does not require monitoring the emission factor during the quantification period.

The sample group of power units *m* used to calculate the BM, and all details of its calculation are available in the "5 Margen de Construcción 2023" and "Resumen Factores" tabs of the spreadsheet "Emission Factors Calculation.xlsx" provided in Annex 05 folder, and data was obtained from the latest dataset of the "Calculation of the CO_2 Emission Factor of the Argentine Electric Power Grid" from the Argentine Secretariat of Energy[H]. This BM was determined as per the procedure indicated in paragraphs 74 to 78 of TOOL07, and the BM emissions factor is the generation-weighted average emission factor (tCO_2/MWh) of all power units *m* during the most recent year *y* for which electricity generation data is available (in this case the year 2023), calculated as follows:

$$EF_{grid,BM,y} = \frac{\sum_m EG_{m,y} \times EF_{EL,m,y}}{\sum_m EG_{m,y}}$$

Where:

$EF_{grid,BM,y}$ = Build margin CO_2 emission factor in year y (tCO_2/MWh)

$EG_{m,y}$ = Net quantity of electricity generated and delivered to the grid by power unit m in year y (MWh)

$EF_{EL,m,y}$ = CO_2 emission factor of power unit m in year y (tCO_2/MWh)

m = Power units included in the build margin

y = Most recent historical year for which electricity generation data is available

Following this equation, the BM emission factor for year 2023 is as follows:

$$\mathbf{EF_{grid,BM,2023} = 0.086\ tCO_2/MWh}$$

Step 6: Calculate the combined margin emissions factor

Following paragraph 81(a) of TOOL07, the grid emission factor of the electricity used in the project activity ($EF_{grid,CM,y}$), is calculated using the weighted average of the operating ($EF_{grid,OMsimple,2021\text{-}2023}$) and build ($EF_{grid,BM,2023}$) margins, with 0.75 and 0.25 weighting factors for OM and BM, respectively. These are the default values established per paragraph 86(a) of TOOL07 for the first and subsequent quantification periods. The selection of the weighted average CM was made according to the flowchart in Figure 5 and paragraph 83 of TOOL07, which states that the weighted average CM method should be used as the preferred option when data to determine BM is available (as is the case here). The weighted average CM is calculated as follows:

$$EF_{grid,CM,y} = EF_{grid,OM,y} \times w_{OM} + EF_{grid,BM,y} \times w_{BM}$$

Where:

$EF_{grid,BM,y}$ = Build margin CO_2 emission factor in year y (tCO_2/MWh)

$EF_{grid,OM,y}$ = Operating margin CO_2 emission factor in year vintage y (tCO_2/MWh)

w_{OM} = Weighting of operating margin emissions factor (per cent)

w_{BM} = Weighting of build margin emissions factor (per cent)

Following this equation, and using the simple OM and BM from steps 4 and 5, respectively, the weighted average CM emission factor for year 2023 is as follows:

$$\mathbf{EF_{grid,CM,2023} = 0.357\ tCO_2/MWh}$$

This factor will be kept fixed during the first quantification period. Weighted average CM calculation is available in the "Resumen Factores" tab of the spreadsheet "Emission Factors Calculation.xlsx" provided in Annex 05 folder, and data was obtained from the latest dataset of the "Calculation of the CO2 Emission Factor of the Argentine Electric Power Grid" from the Argentine Secretariat of Energy[H]. By multiplying $EG_{facility,y}$ annual values by the $EF_{grid,BM,2023}$ calculated above, the estimated rounded annual baseline emissions are derived and presented below:

Power Plant	Year	$EG_{PJ,y}$ (MWh/yr)	BE_y (tCO2/yr)
PSSU	2023 (30/03 - 31/12)	152,097	**54,269**
	2024	199,646	**71,235**
	2025	198,870	**70,958**
	2026	198,087	**70,678**
	2027	197,301	**70,398**
	2028	196,511	**70,116**
	2029	195,717	**69,833**
	2030 (01/01 – 29/03)	46,994	**16,768**
PSTO III	2023 (30/12 - 31/12)[I]	1,014	**362**
	2024	184,571	**65,856**
	2025	184,118	**65,694**
	2026	183,660	**65,531**
	2027	183,196	**65,365**
	2028	182,724	**65,197**
	2029	182,246	**65,026**
	2030 (01/01 – 29/03)	43,822	**15,636**

[I] December 30th is the date when the solar park commenced operations.

Table 32 (previous page): Estimated rounded annual baseline emissions for solar parks in Instance 01.

It is important to note that the details of the $EG_{PJ,y}$ estimations for each solar park are provided in the spreadsheet "Baseline Emissions Calculations.xlsx" provided in Annex 05 folder, which will be available to the CAB.

The sum of the estimated baseline emissions from both parks for each year represents the Estimated Net GHG Reduction, as shown in the next section.

3.7.4 GHG project emissions

Since the project activity is the operation of solar parks for the generation of solar photovoltaic energy, with no BESS included, the project emissions are zero.

$$\mathbf{PEy = 0}$$

The total emission reductions (i.e. Estimated Net GHG Reduction) are equal to the baseline emissions since project emissions are zero and, as per paragraph 72 of ACM0002 v22.0:

$$ER_y = BE_y - PE_y$$

Where:

ER_y = Emission reductions in year y (tCO2e/yr)

BE_y = Baseline emissions in year y (tCO2/yr)

PE_y = Project emissions in year y (tCO2e/yr)

ER_y during the project's first quantification period and the estimated annual average are shown below. It is worth noting that the start date for the first quantification period is March 30, 2023, as this is the start date of PSSU, the first park in Instance 01 to begin operations.

For this first year, emission reductions are composed of the reductions generated by PSSU between March 30, 2023, and December 31, 2023, added to the reductions generated by PSTO III from December 30, 2023, which is when PSTO III started its operations.

The table below shows the total net emission reductions estimated *ex-ante* for Instance 01 and for the first quantification period.

Year	GHG emission reductions in the baseline scenario (tCO_2e)	GHG emission reductions in the project scenario (tCO_2e)	GHG emissions attributable to leakages (tCO_2e)	Estimated Net GHG Reduction (tCO_2e)
2023 **(30/03 - 31/12)**	54,630	0	0	**54,630**
2024	137,090	0	0	**137,090**
2025	136,651	0	0	**136,651**
2026	136,208	0	0	**136,208**
2027	135,762	0	0	**135,762**
2028	135,312	0	0	**135,312**
2029	134,858	0	0	**134,858**
2030 **(01/01 – 29/03)**	32,403	0	0	**32,403**
Total	**902,914**	**0**	**0**	**902,914**

Table 33: Instance 01 total and annualized Estimated Net GHG Reductions (in tCO_2e) for the project's first quantification period.

3.7.5 GHG leakages

Not applicable as per paragraph 71 of ACM0002 v22.0.

4 Compliance with Laws, Statutes and Other Regulatory Frameworks

In the development of all stages of constructing the new solar photovoltaic plants—design, construction, operation, and maintenance—the broadest consideration of associated environmental issues will be taken into account. This will be done by following the environmental management guidelines provided by current regulations and incorporating quality criteria that allow the project's development to be compatible with its surrounding environment. Compliance with current regulations and commitment to the management structures overseeing all activities involved in this project are of vital importance.

This grouped project complies with the protection of communities and peoples' rights (including Indigenous communities), in accordance with international regulations. This serves as compliances with regulations such as the United Nations Declaration on the Rights of Indigenous Peoples and ILO Convention 169 on Indigenous Peoples.[J].

Regarding Indigenous Peoples' rights at the national level, the National Institute of Indigenous Affairs (Instituto Nacional de Asuntos Indígenas, INAI)[K] is the official Argentine organization that serves as the enforcement authority on this matter.

The Huarpe people are the main Indigenous community present in the province. The population that identifies as indigenous or descendant of indigenous or native peoples represents 1.8% of the San Juan provincial population.

Location	Indigenous Population	Percentage of Total Population	Indigenous Women	Indigenous Men	Masculinity Index
Province of San Juan	14,457	1.8%	7,256	7,201	99

Table 34: Population that identifies as belonging to or descended from an indigenous people in San Juan according to percentage of participation over the total province population, sex, and masculinity index[L].

[J] Genneia Code of Conduct, sections 2 (Human Rights) and 3 (Vinlculation and compromise with the communities), publicly available in the following link.
[K] https://www.argentina.gob.ar/interior/inai
[L] Servicio informativo de San Juan (29/10/2020) "Pueblos originarios buscan la reglamentación del Consejo Consultivo Indígena Provincial". Available in the following link.
Portal Argentina (28/09/2021) "El INAI firmó un convenio con la provincia de San Juan para el relevamiento territorial de comunidades indígenas". Available in: the following link.

Regarding the area of residence, according to the latest available data corresponding to the 2010 Census, in the province, three-quarters of the indigenous population resides in urban areas (76%). Currently, there are 13 registered communities in the province of San Juan and none in the department of Calingasta (PSTO III) nor the department of Ullum (PSSU) according to the National Register of Indigenous Communities (Re.Na.C.I.) of INAI:

> The Re.Na.C.I. was created by Resolution No. 4811/1996 of the National Secretariat for Social Development, with the INAI as the implementing body. The resolution authorizes the registration in Re.Na.C.I., under the scope of Article 75, Clause 17 of the National Constitution, of all communities that request it and comply with the requirements set forth in the second article. Article 2 establishes that the only requirements for registration are the name and geographic location of the community, a summary proving its ethnic-cultural and historical origin with available documentation, a description of its organizational guidelines and the mechanisms for the appointment and removal of its authorities, and a list of members with their degrees of kinship, as well as the mechanisms for the integration and exclusion of its members.

The table below lists the communities throughout the province according to data updated to 2024 by INAI.

Indigenous Group	Department	Locality	Community/ Neighborhood/Area	Zone
Huarpe	Sarmiento	Los Berros	Comunidad Huanacache Esperanza Huarpe	Urban
Huarpe	25 de Mayo	Tupelí	B° Punta del Medano, Villa Mediagua y Las Lagunas. Pjes. Punta del Agua y Colonia Sílvica	Rural
		El Encón	Pje. Curz de San Pedro	Rural
		El Encón	-	Rural
Diaguita	Valle Fértil	Villa San Agustín	-	Urban
		Astica	-	No data
		Usno	-	Urban
Huarpe		Villa San Agustín	-	Rural
Huarpe	Caucete	Vallecito	Puestos del Sur	No data
		Bermejo	-	Rural
		Marayes	Pje. Las Chacras	Rural
		Las Talas	-	Rural
Huarpe	Rivadavia	Rivadavia	-	Urban

Table 35: Indigenous Communities identified for the province of San Juan.

Based on the fieldwork and interviews with local stakeholders (see section 9), there is no presence of indigenous populations and/or territorial claims by indigenous communities within the project areas for Instance 01 or in the neighboring properties.

In relation to these GHG project activities, it is important to highlight that the National Government has established a legal framework to promote renewable energy, which positively impacts this grouped project as it involves the generation of solar energy through solar parks (for example, National Law No. 27,191 as mentioned in section 2).

Regarding compliance with relevant laws that may affect the grouped project, Genneia, as part of its Integrated Management System (SIG), has implemented a procedure for ensuring legal compliance. This procedure can be found in the file "Procedure for legal compliance.pdf" available inside Annex 06 folder, and it is managed by the company's legal team, serving as a documented process (Documentary Management System) to identify, evaluate, and monitor applicable laws and regulations continuously, as well as to periodically review compliance with them.

Relevant laws that directly impact project activities are outlined below, along with the justification for the project's compliance with each in the case of solar parks of Instance 01 (for future Instances the same process will be followed).

Law	Description	Justification for Compliance
No. 24,065 (National Law)	Legal aspects related to the Wholesale Electricity Market (MEM) and its rights and obligations.	The Argentine Secretariat of Energy, on behalf of the National Executive Power of the Republic of Argentina, authorized GENNEIA S.A. to operate as a MEM agent for the PSSU solar park under Resolution RESOL-2022-804-APN-SE#MEC and for the PSTO III solar park under Resolution RESOL-2023-861-APN-SE#MEC. Both resolutions are included in the folder titled "MEM Agent Authorizations" in Annex 06 folder.
No. 6,634 (Provincial San Juan Law)	General Environmental Law: Guiding principles for the preservation, conservation, protection, and improvement of the provincial environment.	Both solar parks, PSSU and PSTO III, conducted environmental impact assessments prior to construction to ensure compliance with all environmental criteria. These assessments are available inside the folder "Environmental Impact Assessments" included in Annex 07 folder.

Table 36: Compliance with relevant laws for solar parks of Instance 01.

5 Carbon ownership and rights

5.1 Project holder

Individual or organization	**GENNEIA S.A.**
Contact person	Antonella Martinenghi Gabriela Guzzo Gustavo Anbinder
Job position	Commercial Senior (Antonella Martinenghi) Manager (Gabriela Guzzo) Director of Business and Development (Gustavo Anbinder)
Address	Dr. Nicolás Repetto 3676, B1636CTJ Olivos, Provincia de Buenos Aires – 3rd Floor – Olivos Building II
Phone number	54 11 6335 0428 (Antonella Martinenghi)
Email	antonella.martinenghi@genneia.com.ar gabriela.guzzo@genneia.com.ar gustavo.anbinder@genneia.com.ar

5.2 Other project participants

Individual or organization	**CORALIAE S.R.L.**
Contact person	Nicolás Gaioli
Job position	Project Manager
Address	Asunción 2444, Ciudad Autónoma de Buenos Aires, C1419AFO, Argentina
Phone number	+54 11 5056 0687
Email	nicolasgaioli@coraliae.com

5.3 Agreements related to carbon rights

GENNEIA S.A. is the sole owner of the solar parks and, consequently, the sole owner of the grouped project, including the associated carbon rights. GENNEIA S.A. holds full land-use rights for the area in which the solar parks are located. The land lease agreements with EPSE for each solar park are included in Annex 06 folder, that will be provided to the CAB. Additionally, Argentine Secretariat of Energy provided authorizations to GENNEIA S.A. for operating as the MEM agent for both solar parks of Instance 01, which proofs ownership of both PSSU and PSTO III operations. These documents are also provided inside the folder "Land Lease Agreements" included in Annex 06 folder.

To ensure transparency and compliance with legal frameworks, GENNEIA S.A. has verified that no indigenous or local traditional communities reside in or have territorial claims within the project area, as confirmed in Sections 4 and 9. Additionally, the company has confirmed that no legal requirement for prior consultation was necessary, as no communities were identified within the area of influence.

5.4 Land tenure (projects in the AFOLU sector)

Not applicable.

6 Climate change adaptation

Climate change is undoubtedly the greatest global challenge of our time and one of the most significant environmental concerns globally due to its severe consequences, including extreme weather events, rising sea levels, and loss of biodiversity, among other negative impacts on the environment and society. These phenomena not only affect the environment but also the economy and public health, highlighting the need for urgent and coordinated action.

In this context, climate change adaptation is essential to avoid operational issues and ensure business continuity. Companies must consider strategies such as building climate-resilient infrastructure, implementing early warning systems, and diversifying energy sources to minimize vulnerability to climate impacts. Additionally, it is crucial to promote the conservation of natural resources and the rehabilitation of ecosystems to strengthen environmental resilience.

As part of climate change adaptation measures, Genneia's Enterprise Risk Management System (ERM) supports decision-making and planning, addressing environmental issues and adapting to them. It enhances the identification of threats and opportunities, improves the response capability to climate threats, boosts credibility and stakeholder confidence, and fosters a risk-aware culture. The Risk Management System allows Genneia to identify risks, evaluate them, and measure the effectiveness of the controls already in place. This creates a circular feedback process where risks are identified, control measures are designed and planned, executed, and then re-evaluated, continuously improving the Integrity and Compliance Program.

Genneia's ERM includes a climate change adaptation plan as part of its risk assessment[M]. This plan consists of identifying possible climate risks and then developing corresponding adaptation measures. It is worth noting that risks represent situations that impact an organization and can be predicted but not controlled. These risks can be of two types:

- Physical, associated with climate change and involving direct damage to infrastructure and operations, indirect damage such as loss of income, or damage caused to third parties;

- Transition, related to the shift towards more sustainable scenarios, whether at regional, national, or internal company levels, which can influence operations and have economic impacts.

Regarding physical risks, Genneia's ERM plays a crucial role in identifying and managing climate-related threats and opportunities for its solar parks, including PSSU & PSTO III. The ERM has facilitated the identification of numerous climate threats to which the solar parks are exposed, such as physical impacts like extreme heat waves or cold spells, heavy precipitation leading to landslides, sea level rise, storms, and severe winds.

[M] Information regarding Genneia's ERM and measures adopted is provided in the 2023 Sustainability Report, pages 152-160. Available in: https://www.genneia.com.ar/docs/Genneia_ReporteSustentabilidad2023_.pdf.

These threats pose risks such as increased technical losses due to more frequent and intense load peaks, reduced efficiency and power generation capacity of the plants, potential substation impacts from flooding, and damage to equipment and infrastructure from fires, tree falls, or sediment drag.

In response to these risks, Genneia has implemented several adaptation actions: using materials more resistant to high temperatures and strong winds, regularly updating performance curves to account for seasonality, incorporating climate variables into investment analyses, automating and monitoring management processes, enhancing emergency plans and detection/alert systems, analyzing curtailments, and ensuring adequate insurance coverage[M].

Transition risks also play a significant role in Genneia's strategic planning. These include fluctuations in raw material costs and emission rights, as well as uncertainties in market behavior. The company's long-term forecasting department considers both national and international decarbonization plans in its projections. Economic decarbonization, driven by increased electrification for heating and transportation, presents opportunities, alongside advancements in digitalization and artificial intelligence in energy generation processes. Genneia is adapting with more flexible electric grids to handle diverse operational scenarios and responding to heightened demands for energy efficiency.

Regulatory uncertainties, such as changes in legislation or fiscal policies affecting renewable energy financing (e.g., RenovAr, MATER), are carefully evaluated alongside climate risks in investment assessments. Moreover, the company continues to manage risks associated with stranded assets and technological changes, while emphasizing sustainability and maintaining robust integrity and compliance standards.

Adding to these climate change adaptation measures, Genneia has also implemented environmental impact assessments for both PSSU and PSTO III which included various climate change adaptation measures derived from the GHG project activities. These assessments involved the development of an environmental management plan that included the identification of potential environmental impacts, covering the construction, operation and maintenance, and abandonment stages of each solar park.

Below is a summary of the various measures considered in the environmental management plan for both PSSU and PSTO III, with the corresponding indicators to monitor these actions.

Impacted Factor	Stage	Task	Measure	Indicator
Water	Construction	Soil movement and construction of permanent installations	Proper planning of road and drainage construction was carried out. The time that cable laying trenches were open was minimized to reduce the possibility of water accumulation during the operation of the solar park.	Number of floodings in each solar park
Water	Abandonment	Dismantling of photovoltaic modules, LMT, and associated installations	As part of the Closure Plan, runoff should not be left intervened and/or leave temporary water accumulation sites other than those found at the start of the Project. Trenches and excavations should be filled.	Abandonment phase report
Socio-economic	Construction, Operation, and Abandonment	Construction of permanent facilities, dismantling of photovoltaic modules, LMT, and associated installations	When weather conditions pose a risk to personnel, equipment, or other environmental factors, operations are suspended until the risk no longer exists.	The personnel, equipment, or other environmental factors affected due to issues related to weather conditions will be monitored to evaluate the effectiveness of the implemented measure. A report will be included.
Measure				**Indicator**
Weekly SHyMA Stakeholder Meetings: Implementing weekly and monthly meetings during construction phase with safety, occupational health, and environmental stakeholders from contracting companies aims to enhance collaborative efforts. These meetings address action plans and mitigation strategies for the project's main occupational and environmental risks.				Evidence of weekly meetings will be provided to monitor this measure.
Emergency Drills: Conducting yearly emergency drills focusing on raising awareness, fostering commitment, and practicing responses to such events among staff. These drills include action plans for scenarios related to extreme weather events, demonstrating strong contractor commitment and preparedness.				Evidence of the conducted emergency drills will be provided to monitor this measure.

Table 37: Climate change adaptation measures covered by the environmental management plans for both PSSU and PSTO III.

7 Risk management

As previously mentioned in section 6, Genneia's ERM supports decision-making and planning to address the environmental, financial, and social risks related to the project activity and managing them.

This ERM allows for the design of mitigation measures for identified risks within the framework of adaptive management. The identified risks that are specific to the project activity, and the proposed mitigation measures are shown in the table below, which follows a structure based on the risk classification from the BCR "Permanence and Risk Management" Tool v1.1.

Risk Category	Condition	Identified Risks	Approach/Management
Environmental	Identify the potential natural and anthropogenic risks to which the GHG mitigation activities may be exposed and the measures necessary to mitigate such risks.	The solar power generation of each park is exposed to climate threats that can generate greater technical losses than usual (more frequent and intense load peaks); lower efficiency and power of plants; possible failure of substations due to flooding risks; damage to equipment and infrastructure from fires/falling trees/dragging sediment.	Use of more resistant materials to high temperatures and strong winds; periodic update of the fragility curve of assets to seasonal events; consideration of climate variables in investment decisions; automation and monitoring of management; improvement of contingency plans for emergencies such as fires, paralysis of plants, and power outages (see reversal risk section).
Financial		Variation in the costs of raw materials and emission rights, and market behavior uncertainty.	The area responsible for making projections and developing long-term pathways takes into account national and international decarbonization plans.

	Identify potential financial risks associated with the expected costs and cash flow of the project and the measures necessary to mitigate the financial risks.	Uncertainty associated with technological development. Threats associated with technological degradation and cybersecurity.	The company has Innovation and Development units, as well as Technical and Performance Analysis. Operational performance analyses are also carried out from the CECO. With the implementation of the "New Genneia Information System," operational risks were overcome. Continuing with the plans initiated in 2021, addressing business continuity risks and those associated with information security, a Cybersecurity IT/OT assessment will be carried out.
		Regulatory or fiscal changes; uncertainty about the financing framework and support for renewable energy development (RenovAr, MATER).	In this regard, climate risk is a fundamental influencing factor and an additional variable in the usual financial and regulatory risk analysis and is therefore included in each investment evaluation.
Social	Determine, in the medium and short term, the risks associated with the participation of local communities and stakeholders in the activities proposed by the project holder.	Changes in behavior and preferences of stakeholders towards more sustainable energy solutions. Increase in demand for accountability in different reporting formats.	The company has an Integrity and Compliance Program, with a Code of Conduct, an Integrity and Compliance Policy, and complementary procedures. Annually, Genneia prepares its Sustainability Report.

Table 38: Risk identification by Genneia's ERM, and adaptative management of all risks identified.

7.1 Reversal Risk

In order to ensure project longevity, and as part of the environmental impact assessments carried out for both PSSU and PSTO III (as mentioned in section 6), a Contingency Plan was designed as a management plan to address the risk of reversion. This plan aims to minimize the negative consequences of an undesired event, provide a rapid response to address contingencies, protect personnel involved in the emergency, safeguard third parties, preserve the original environmental conditions, and protect material, economic, and socio-cultural assets within the project's area of influence. It serves as an immediate application tool in case of accidents or unforeseen events, requiring swift and appropriate responses through specific actions or procedures.

The contingency plan designates a responsible individual to develop and coordinate actions and procedures to respond to the occurred event, mitigate damage, rehabilitate, and restore the affected system. The development of the procedural plan establishes the sequence of actions to be undertaken during and after the occurrence of the contingency or event.

A contingency is defined as any undesired event that disrupts the normal and anticipated condition of equipment, installation, or plant, potentially causing harm to individuals, the environment, installations, ongoing operations, or a combination of these.

The most likely risks identified during construction and operation activities include:

- Earthquake/Tremor of catastrophic characteristics causing the total or partial collapse of photovoltaic panels and/or overhead electrical lines.
- Strong winds leading to the total or partial collapse of photovoltaic panels and/or overhead electrical lines.
- Flooding.
- Excess water and mud reaching electrical installations, causing potential electrical breakages, short circuits, and/or explosions.
- Fire in installations or fields.
- Traffic accidents occurring within or outside the project site.

The table below summarizes the procedures carried out in the event of a contingency and the personnel responsible for executing the response:

Contingency	Action	Responsible
Earthquake/Tremor	1. Immediate cessation of equipment operation. 2. Inspection of damaged equipment 3. Delimitation of the affected area. 4. Cleaning of the affected area and waste management. 5. In case of serious incidents, notify the appropriate authorities. 6. Evacuation plan if necessary.	Project/Site Leader Safety and Environmental Supervisor
Strong Winds	1. Immediate cessation of equipment operation. 2. Inspection of damaged equipment. 3. Delimitation of the affected area. 4. Cleaning and Waste Management. 5. If trees, branches, or cables fall on public roads, notify the appropriate authorities and place signage if road circulation is affected.	Project/Site Leader Safety and Environmental Supervisor
Fire	1. Activation of the emergency response team. 2. Electricity supply cut-off. 3. Containment of the fire to prevent its spread. 4. Fire control and extinguishment. 5. Evacuation plan if necessary. 6. Notification to media, public authorities, and neighbors if necessary.	Project/Site Leader Safety and Environmental Supervisor Response group leader
Flood	1. Immediate cessation of equipment operation. 2. Notification to the responsible supervisor. 3. Delimitation of the affected area. 4. Cleaning of the affected area and waste management. 5. In case of serious incidents, notify the appropriate authorities. 6. Evacuation plan if necessary.	Project/Site Leader Safety and Environmental Supervisor
Personnel Accident / Traffic Accident	1. Ensure safety of vehicles and involved persons. 2. Signal the location. 3. Attend to and assess injuries. 4. If necessary, notify the insurance company. Obtain reference from the involved third parties. 5. Involve local police.	Project/Site Leader Safety and Environmental Supervisor Administrative sector Workplace accident insurance (ART) Medical emergencies

Table 39: Procedures in response to a contingency according to the contingency plan.

Adding to this, Risk and Permanence tool of BCR standard states:

"In any case, for the projects in sectors energy, waste and transportation, during each verification registration, the system automatically discounts a reserve of 10% of the total quantified GHG emissions reductions for each verified period."

Since this is a project in the energy sector, 10% of total VCCs generated will be discounted as a reserve for reversal risk management.

7.1.1 Loss Event Report

Not applicable in this instance.

8 Sustainable development safeguards (SDSs)

To ensure environmental and socio-economic sustainability, an environmental impact assessment was carried out for each solar park of the initial instance of this grouped project (PSSU and PSTO III). These assessments analyzed the potential effects on biodiversity and ecosystems within the project boundaries and are included inside the folder "Environmental Impact Assessments" included in Annex 07 folder, that will be provided to the CAB. Actions and corrective measures to prevent and/or mitigate the environmental impacts resulting from the project activities were defined as part of an environmental management plan included in the environmental impact assessment of each solar park.

To address the risks related to environmental and socio-economic safeguards that may arise from the activities of this grouped project, the assessment questionnaire included in Annex A of the Sustainable Development Safeguards Tool v1.1 of the BCR Standard is answered below, providing appropriate justification for each of the questions.

It is worth noting that, since this is a grouped project, all sustainable development safeguards addressed bellow will be considered for future instances and properly addressed in due course.

8.1 Environment

8.1.1 Land use: resource efficiency and pollution prevention and management

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Land degradation or soil erosion, leading to the loss of productive land?[1]	■ Yes ☐ Potentially ☐ No	Clearing tasks and soil movement may cause erosion due to wind and rain, leading to a negative, permanent, moderate, and localized impact. Also, regarding the loss of productive land, for the specific case of PSSU, the construction of permanent facilities has altered negatively and permanently the use of the land, which was employed on a small scale for extensive livestock activities. However, prior to the project, the soil in the area had not undergone sustained intervention for production purposes. This means the soil layer will be modified due to construction tasks, particularly the clearing of the herbaceous layer, leading to a permanent, moderate, and localized impact. For the specific case of PSTO III, except for undocumentable transhumance activities, no significant productive activity was observed on the project site. Hence, the modification of the land use is not expected to result in a significant negative impact on productive activities. Although these negative impacts are considered permanent, moderate, and localized in the immediate surroundings, the project includes specific measures to mitigate these effects. **Mitigation measures for construction phase:** As specific measures implemented to mitigate these effects during the construction phase of both parks, the same access roads were used for vehicle circulation, which were reconditioned for this purpose. Also, the trenches for cable laying and the excavations for foundations were quickly closed. These ensures minimizing the size of the cleared land and reducing the negative impact on the land in the project area. This will also be applied for future project instances. **Mitigation measures for abandonment phase:**

		Prior to dismantling of Photovoltaic Modules, LMT, and Associated and Permanent Installations, an assessment will be conducted to ensure there are no signs of environmental liabilities (especially in hazardous waste storage areas). The indicator to monitor this mitigation measure will be the hectares of land affected by environmental liabilities, such as spills, leaks, or improper storage of hazardous materials (ha affected). This parameter can be found in Section 16: Monitoring Plan. After dismantling of Photovoltaic Modules, LMT, and Associated Installations, land restoration activities will promote the recovery of the natural productive conditions of the soil in the intervened areas. The filling and landscaping tasks will restore the soil profiles to their pre-intervention state (previous to construction phase), generating a permanent positive impact. The scarification will also restore the vegetation cover to its pre-intervention state. The indicator to monitor this mitigation measure will be the hectares of restored soil in the project area (ha restored), and this parameter can be found in Section 16: Monitoring Plan. All vehicles entering each park during the abandonment phase will be in perfect maintenance condition, thus avoiding potential fuel and/or oil spills.
Contaminating soils and aquifers with pollutants, chemicals, or hazardous materials?[2]	☐ Yes ■ Potentially ☐ No	Inadequate management of waste (particularly hazardous waste), without efficient containment for liquids and/or leachates at the temporary storage site, may affect the quality of soils and aquifers. Another impact to these resources may be the improper storage of liquid inputs (lubricants). Also waste spills may occur. These types of negative impacts will be minimal to negligible, specific, and mitigable within the project environment. **Mitigation measures for waste management:**

		In the event of a hazardous waste spill, it will be contained, and the affected area will be remediated by collecting the spill and sending the contaminated material to the Hazardous Waste Facility. A spill kit is available, including absorbent powder, diatomaceous earth, and a plastic shovel to collect the affected soil for disposal in an appropriate container with a lid. Proper waste management will be carried out according to the company's procedures and the current environmental framework. The indicators to monitor this mitigation measure will be the response to hazardous waste spill (liters or kg) and the bacteriological and physicochemical quality of water for human consumption. These parameters can be found in Section 16: Monitoring Plan. At the beginning of the abandonment phase of each park and prior to dismantling of Photovoltaic Modules, LMT, and Associated and Permanent Installations, an assessment will be conducted to ensure there are no signs of environmental liabilities (especially in hazardous waste storage areas). Staff, including employees, contractors, and third parties, were trained in specific topics related to Waste Management and Environmental issues. Waste that could be transported by the wind (such as cardboard, papers, and packing tapes) was placed in designated containers.
Air and water pollution resulting from project-related emissions, discharges, or improper waste disposal practices?	☐ Yes ■ Potentially ☐ No	Already addressed in a previous question (refer to question marked with [2]).
Detrimental excess of nutrients caused by the use of fertilizers and/or pesticides?	☐ Yes ☐ Potentially ■ No	No fertilizers nor pesticides are used as part of the project activity.
Inadequate waste management practices, leading to the improper disposal of project-related waste and potential environmental harm?	☐ Yes ■ Potentially ☐ No	Already addressed in a previous question (refer to question marked with [2]).

Inefficient resource use, including energy, water, and raw materials, leading to increased environmental footprint?[3]	☐ Yes ☐ Potentially ■ No	During the construction phase of each solar park, the use of construction water was necessary. This resource can be managed inadequately, leading to a minor increase in the environmental footprint. In this context, efforts were made to optimize water use to minimize this impact and the impact on other water resource uses in the region. This will also be applied for future project instances.
Losing productive agricultural land to urban expansion, impacting local food production, rural livelihoods, and overall food security?	☐ Yes ☐ Potentially ■ No	The solar parks involved in this grouped project are/will be located in desertic zones within the Cuyo region, where there is little to no vegetation and, therefore, where no agricultural production exists. This is properly addressed as part of the environmental impact assessments carried out for each solar park, where environmental impacts associated with each park were identified.
Urbanization, leading to the urban heat island effect, impacting local climates and potentially contributing to higher energy consumption for cooling?	☐ Yes ☐ Potentially ■ No	The project activity involves the generation of solar photovoltaic energy by the construction of solar parks in the Cuyo region. In this regard, this activity does not involve significant urbanization. Moreover, the urban heat island effect primarily results from large-scale urban development, with dense buildings, asphalt, and reduced vegetation. A solar park alone does not create these conditions, especially considering that these parks are located in relatively desertic areas without neighboring populations adjacent to the parks.
Disrupting natural drainage systems, leading to increased vulnerability to floods, soil erosion, or other hydrological issues?	☐ Yes ■ Potentially ☐ No	Impacts on temporary runoff could occur if proper planning is not carried out, either decreasing or increasing the occasional flow through them. These types of negative impacts will be minimal to negligible, specific, and mitigable within the project environment. In this context, proper planning was conducted for the construction of roads and drainage systems for both parks during the initial phase. The time that the cable trenches were open was minimized to reduce the possibility of water accumulation. During the abandonment phase, backfilling and leveling activities will adapt the land to avoid affecting runoff and prevent temporary water accumulation. These tasks will also restore the impacts caused during the construction phase.

Inadequate recycling and reuse of project-related resources, leading to unnecessary waste and environmental impact?	☐ Yes ■ Potentially ☐ No	Recycling and reuse of project-related resources will be addressed in due course when closer to the abandonment phase of each solar park. The indicator to monitor this mitigation measure will be tons of recycled material and this parameter can be found in Section 16: Monitoring Plan.
Deforestation or degradation of forested areas impacting carbon sequestration, biodiversity, and ecosystem services?	☐ Yes ☐ Potentially ■ No	The solar parks involved in this grouped project are/will be located in desertic zones within the Cuyo region, where there is little to no vegetation and, therefore, where no forested areas exist. This is properly addressed as part of the environmental impact assessments carried out for each solar park, where environmental impacts associated with each park were identified.
Changes in agricultural practices, such as intensive monoculture, leading to soil degradation, loss of biodiversity, and increased vulnerability to pests?	☐ Yes ☐ Potentially ■ No	As previously mentioned, the solar parks involved in this grouped project are/will be located in desertic zones within the Cuyo region, where there is little to no vegetation and, therefore, where no agricultural production exists.
Urbanization or infrastructure development leading to changes in land use patterns and potential habitat fragmentation?[4]	■ Yes ☐ Potentially ☐ No	During the construction phase of each solar park, the construction of permanent facilities negatively and permanently altered land use patterns. Regarding PSSU and PSTO III, to mitigate this impact, the same access roads were used for vehicle circulation, which were reconditioned for this purpose. Additionally, the trenches for cable laying and the excavations for foundations were quickly closed. This will also be applied to future project phases.

Table 40: Land use safeguards assessment questionnaire.

8.1.2 Water

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Exacerbating water scarcity or depleting water resources?	☐ Yes ■ Potentially ☐ No	Already addressed in previous questions (refer to question marked with [2] and [3]).
Water pollution, including contamination of rivers, lakes, oceans, or aquifers as a result of project-related activities such as emissions, spills, or waste disposal?	☐ Yes ■ Potentially ☐ No	Already addressed in a previous question (refer to question marked with [2]).
Disrupting aquatic ecosystems, including marine life, river ecosystems, or wetlands, due to changes in water quality, temperature, or flow patterns?	☐ Yes ☐ Potentially ■ No	No aquatic ecosystems were found to be nearby nor affected by the project activity. This was addressed as part of the environmental impact assessments carried out for each park.
Altering coastal dynamics, including erosion, sedimentation, or changes in sea levels?	☐ Yes ☐ Potentially ■ No	There are no coasts nearby the sites where project activities are/will be carried out.
Displacing or negatively impacting wetland habitats, affecting the unique biodiversity and ecosystem services provided by wetlands?	☐ Yes ☐ Potentially ■ No	Since the solar park are/will be located in desertic zones, there are no wetlands nearby these parks.

Altering river flow patterns, potentially leading to downstream impacts on water availability, sediment transport, and ecosystems?	☐ Yes ☐ Potentially ■ No	There are no rivers nearby the sites where project activities are/will be carried out.
Depleting aquifers and groundwater resources as a result of the project's activities, impacting local water supplies and ecosystem sustainability?	☐ Yes ■ Potentially ☐ No	Already addressed in a previous question (refer to question marked with [2]).
Mountainous terrains, including changes in snowmelt patterns, glacier dynamics, or alterations in water runoff?	☐ Yes ☐ Potentially ■ No	There are no mountainous terrains nearby the sites where project activities are/will be carried out.
Disrupting lake ecosystems, including changes in water quality, nutrient levels, or habitat disturbance?	☐ Yes ☐ Potentially ■ No	There are no lakes nearby the sites where project activities are/will be carried out.
Contributing to ocean acidification, with potential consequences for marine life and coral reef ecosystems?	☐ Yes ☐ Potentially ■ No	There are no oceans nearby the sites where project activities are/will be carried out.

Table 41: Water safeguards assessment questionnaire.

8.1.3 Biodiversity and ecosystems

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Habitat destruction or fragmentation, impacting biodiversity by reducing available habitats for various species?[5]	■ Yes ☐ Potentially ☐ No	Part of this has already been addressed in previous questions (refer to questions marked with [1] and [4]). **Instance 01** The project activities for the two solar parks, PSSU and PSTO III, involve construction, operation, and abandonment phases, each with potential impacts on habitat destruction, fragmentation, and biodiversity. During the construction phase, the clearing tasks negatively and permanently affect the arboreal/shrub layer, although the region lacks a predominant herbaceous layer. This phase also sees permanent impacts on mammals, birds, reptiles, and amphibians due to habitat and shelter site loss, with food sources being threatened as well. Additionally, moderate, temporary impacts arise from inadequate waste management and construction noise. Mitigation measures include obtaining authorization for arboreal/shrub species removal as per relevant laws, prohibiting unnecessary clearing, and designating specific areas for construction vehicle parking to prevent fire hazards that could affect biodiversity. Evidence of this will be provided if necessary. In the operation phase, bird behavior might be altered as they could confuse solar panels with water bodies, risking collision and injury, or face habitat modification risks if they descend into unsuitable areas. To mitigate these issues, the inclination of solar panels will be adjusted during standby when feasible, outdoor light use will be minimized to avoid attracting birds or insects, and sound and/or visual bird deterrents will be employed based on available technology. The indicator to monitor these mitigation measures will be the report of mitigation measures for bird incidents, and this parameter can be found in Section 16: Monitoring Plan.

		The abandonment phase considers slight or temporary impacts from inadequate waste management on mammals and birds. However, the dismantling of panels will positively affect bats and terrestrial mammals by restoring habitat quality, with similar positive effects expected for reptiles and amphibians. Proper waste management will follow the Company's procedures, and habitat restoration efforts will include soil scarification and fostering conditions for revegetation. The indicator to monitor these mitigation measures will be the hectares of restored soil in the project area (ha restored), and this parameter can be found in Section 16: Monitoring Plan. Additionally, general mitigation measures across all phases include imposing speed limits for vehicle circulation to ensure road safety and minimize dust emissions, prohibiting vehicle and machinery circulation outside designated sectors, and requiring contractors to maintain Vehicle Technical Verification to reduce emissions and noise. The indicator to monitor these mitigation measures will be the traffic and road safety hazards including the record of the number of incidents and impacts to traffic flow. This parameter can be found in Section 16: Monitoring Plan. On the other hand, wildlife protection measures prohibit feeding local wildlife and introducing non-native species while ensuring adequate road signage to indicate the presence of wildlife. Finally, personnel, contractors, and third parties will be trained in specific waste management and environmental topics, with restoration tasks promoting the natural recovery of flora. The indicator to monitor these mitigation measures will be the wildlife impacts during the abandonment phase, and this parameter can be found in Section 16: Monitoring Plan. **Future instances** It is worth noting that all identified impacts, procedures and mitigation actions are part of the environmental impact assessments made for both solar parks of the first instance of this grouped project. For future instances this will be also implemented, if necessary.

Introducing invasive species, which could negatively affect native flora and fauna and disrupt local ecosystems?	☐ Yes ☐ Potentially ■ No	This is a renewable energy generation project and does not include activities involving the introduction of invasive species.
Altering ecosystem dynamics, including changes in species composition, trophic interactions, or nutrient cycles on the environment?	■ Yes ☐ Potentially ☐ No	Already addressed in a previous question (refer to question marked with [5]).
Disrupting migration patterns for wildlife species, such as birds, mammals, or aquatic organisms?	■ Yes ☐ Potentially ☐ No	Already addressed in a previous question (refer to question marked with [5]).
Chemical contamination or pollution negatively impacting biodiversity in soil, water, or air?[6]	■ Yes ☐ Potentially ☐ No	Project activities could lead to chemical contamination or pollution that may negatively impact biodiversity in soil, water, or air, but these impacts are generally mild, temporary, and confined to project areas. Regarding impact on soil and water, this was already addressed in a previous question (refer to question marked with [2]). Regarding impact on biodiversity, this was already addressed in a previous question (refer to question marked with [5]). Regarding impacts to air, during the construction phase, diffuse emissions of particulate matter will be associated with soil movement due to construction activities and vehicle movement. If the terrain is not adequately moistened, there will be localized nuisances for individuals traveling on nearby routes or for personnel working on-site. Additionally, gaseous emissions from the combustion of transport vehicles will contribute to the negative impacts on air quality. However, these impacts are expected to be mild and temporary, primarily affecting the immediate project area.

		In the operation and maintenance phase, solar parks will have a positive and permanent impact on air quality by using renewable energy sources. This phase will reduce reliance on energy sources based on hydrocarbon derivatives or hydroelectric sources, thus positively affecting air quality and mitigating pollution. During the abandonment phase, the negative impacts on air quality will be similar to those during the construction phase. Diffuse emissions of particulate matter will be related to soil movement from demolition activities and vehicle movement. Without proper moistening, these emissions could affect the personnel on-site. While the gaseous emissions from combustion will be mild, the most significant permanent negative impact will be the loss of the renewable energy source, which is solar in this case. To mitigate these impacts, specific measures will be implemented. Roads and areas will be moistened as needed to prevent the generation of suspended particulate matter. Water for this process will be supplied by a contractor authorized for this service from the nearest locality, using a licensed public loader. These measures are designed to minimize negative impacts on air quality, ensuring that pollution is controlled, preventing significant harm to air. For example, during the construction phase of PSSU & PSTO III, which has now concluded, roads were moistened to prevent particulate matter from affecting traffic on RP No. 54 (PSSU) and RP No. 412 (PSTO III). The indicator to monitor this mitigation measure will be PM10 levels within the project area once at 50% of the construction stage and then after completion, measurements will be taken semiannually (PM10 levels). This parameter can be found in Section 16: Monitoring Plan.
Overexploiting natural resources, such as timber, water, or other materials, leading to declines in biodiversity and ecological balance?	☐ Yes ☐ Potentially ■ No	Resources are not overexploited as part of the project activities, as it only involves the construction of parks for photovoltaic solar energy generation. The project focuses on developing infrastructure to harness solar energy without intensive exploitation of natural resources such as timber, water, or other materials. This ensures that there is no significant negative impact on biodiversity or ecological balance.

Overharvesting species at rates faster than they can actually sustain themselves in the wild?	☐ Yes ☐ Potentially ■ No	There is no harvesting involved in the project activities. The project solely involves the construction of parks for photovoltaic solar energy generation. This means that there are no activities related to the extraction or collection of species, ensuring that the project does not impact species sustainability in the wild.
Climate change-induced impacts on biodiversity, including shifts in species distributions, changes in phenology, or increased vulnerability to extreme weather events?	☐ Yes ☐ Potentially ■ No	The project involves de generation of renewable energy, aiming to mitigate climate change-induced impacts by replacing other –more contaminant– energy sources (e.g. fossil fuels).
Negatively impacting endangered or threatened species within the project area, either directly or indirectly through habitat changes or other disturbances?	☐ Yes ■ Potentially ☐ No	Project activities could potentially negatively impact endangered or threatened species within the project area, either directly or indirectly through land clearing during construction phase, and other disturbances. However, to mitigate these impacts, comprehensive decommissioning and restoration plans are in place for PSSU & PSTO III, and will be implemented for future instances. During the dismantling phase, the site will be restored to its original conditions before the photovoltaic park was installed. This includes conducting soil analyses and monitoring to ensure the absence of contaminants. Additionally, native species will be planted according to the density, diversity, and coverage identified in the baseline study, and measures will be taken to create conditions that support the natural recovery of local flora, such as soil scarification and promoting vegetation regrowth. The indicator to monitor this mitigation measure will be the hectares of restored soil in the project area (ha restored), and this parameter can be found in Section 16: Monitoring Plan.

Reducing genetic diversity within populations, potentially leading to decreased resilience and adaptability of species in the face of environmental changes?	☐ Yes ☐ Potentially ■ No	Project activities are unlikely to reduce genetic diversity within populations. This is a renewable energy project focused on constructing photovoltaic solar parks, which does not involve activities that could alter or impact genetic diversity. The project is designed to harness solar energy without engaging in practices that would affect the genotype of species in the area.
Inadequate monitoring and assessment of biodiversity within the project area, making it challenging to identify and address changes over time?	☐ Yes ☐ Potentially ■ No	As part of the environmental impact assessments for each solar park in the initial phase of this grouped project (PSSU & PSTO III), sampling sites were established to identify species. The identified species and conclusions are detailed inside the folder "Biodiversity Baseline" included in Annex 07 folder. This comprehensive approach ensures that changes in biodiversity are effectively monitored and addressed over time. This will be also applied for future instances of the grouped project.
Pressure on vulnerable ecosystems?	☐ Yes ☐ Potentially ■ No	This project is unlikely to lead to significant pressure on vulnerable ecosystems. The project involves constructing photovoltaic solar parks, which primarily focuses on harnessing solar energy. It does not involve activities that typically exert pressure on ecosystems, such as intensive resource extraction or large-scale land alterations. Furthermore, measures are in place to ensure minimal environmental impact and promote restoration and recovery of any affected areas.

Table 42: Biodiversity and ecosystems safeguards assessment questionnaire.

8.1.4 Climate Change

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Changes in habitat suitability for species due to climate change impacts, leading to shifts in species distributions or loss of critical habitat?	☐ Yes ☐ Potentially ■ No	The project involves the generation of renewable energy, aiming to mitigate climate change-induced impacts by replacing other –more contaminant– energy sources (e.g. fossil fuels).
Disrupt ecosystem services provided by biodiversity, such as pollination, water purification, and carbon sequestration, affecting overall ecosystem functioning?	☐ Yes ☐ Potentially ■ No	Project activities are unlikely to significantly disrupt ecosystem services provided by biodiversity, such as pollination, water purification, and carbon sequestration, thereby affecting overall ecosystem functioning. During the construction phase of each solar park, there will be some disturbance due to soil movement and vehicle activities. However, given the sparse vegetation and low density of pollinator species in the Cuyo region, the impact on pollination services is expected to be minimal. Additionally, the temporary nature of construction activities and the implementation of mitigation measures, such as moistening the soil to reduce dust emissions, will further minimize potential disruptions. Water purification services are also unlikely to be significantly affected. The arid nature of the Cuyo region means there are few water bodies or wetlands that could be impacted by the project activities. Furthermore, the planned mitigation measures, including proper waste management and limiting the movement of vehicles and machinery to designated areas, will help protect any existing water resources from contamination. Carbon sequestration in the Cuyo region is naturally limited due to the low vegetation cover. While the construction and abandonment phases will involve some soil disturbance, the overall impact on carbon sequestration will be negligible. In contrast, the operation phase of the solar parks will provide a positive contribution by generating renewable energy, thereby reducing reliance on fossil fuels and contributing to overall carbon emission reductions.

The spread of invasive species, leading to competition with native species and alteration of ecosystem dynamics?	☐ Yes ☐ Potentially ■ No	The construction phase of each solar park can affect negatively native species but does not involve the spread of invasive species.
Increased frequency or intensity of extreme weather events, such as storms, droughts, or floods, which can damage habitats and threaten species survival?	☐ Yes ☐ Potentially ■ No	The project involves the generation of renewable energy, aiming to mitigate climate change-induced impacts by replacing other –more contaminant– energy sources (e.g. fossil fuels).
Alteration of the phenology and behavior of species, affecting reproductive cycles, migration patterns, and interactions with other species, disrupting ecosystem dynamics?[7]	■ Yes ☐ Potentially ☐ No	The project activities have the potential to alter the phenology and behavior of species, affecting reproductive cycles, migration patterns, and interactions with other species, thus disrupting ecosystem dynamics. During the construction phase of each solar park, habitat reduction due to clearing tasks negatively and permanently impacts the arboreal/shrub layer, which affects the fauna (mammals, birds, reptiles, and amphibians) that depend on this habitat for shelter and food. The noise from construction equipment and inadequate waste management further disrupts species' behavior temporarily and moderately, although these impacts are mitigable. Specific measures, such as obtaining necessary permits for land clearing and designating parking areas for construction vehicles, will help minimize these effects. These mitigation measures were already implemented for both solar parks of Instance 01 (PSSU & PSTO III). The indicator to monitor these measures will be the wildlife impacts during construction, and this parameter can be found in Section 16: Monitoring Plan.

		In the operation phase, birds face risks due to behavior changes, such as confusing solar panels with water bodies, which can lead to collisions and injuries. Habitat modification can also occur when birds descend into unsuitable areas. To mitigate these impacts, measures like adjusting the inclination of solar panels during standby, minimizing outdoor lights, and using bird deterrents are implemented. The indicator to monitor these mitigation measures will be the report of mitigation measures for bird incidents and this parameter can be found in Section 16: Monitoring Plan. During the abandonment phase, inadequate waste management can slightly and temporarily affect mammals, birds, reptiles, and amphibians. However, the dismantling of panels and proper waste management according to the Company's procedures can positively impact bats and other species by improving habitat quality. General mitigation measures across all phases include imposing speed limits for vehicles, prohibiting unnecessary circulation of vehicles and machinery, and ensuring adequate road signage to protect wildlife. Training personnel and contractors in waste management and environmental topics, along with restoration tasks promoting natural flora recovery, further support ecosystem balance. The indicator to monitor these mitigation measures will be the wildlife impacts during the abandonment phase, and this parameter can be found in Section 16: Monitoring Plan.
Reducing genetic diversity within species populations due to climate change-induced habitat loss or fragmentation, compromising the adaptive capacity of populations to environmental stressors?	☐ Yes ☐ Potentially ■ No	The project involves de generation of renewable energy, aiming to mitigate climate change-induced impacts by replacing other –more contaminant– energy sources (e.g. fossil fuels).

Exacerbation of the prevalence of diseases and pathogens among wildlife populations, leading to population declines and ecosystem destabilization?	☐ Yes ☐ Potentially ■ No	There is no reason to believe that the project's activities could cause an exacerbation of the prevalence of diseases and pathogens among wildlife populations, nor has this been identified in the environmental impact assessments conducted for each solar park.
Weakening the resilience of ecosystems to disturbances, making them more susceptible to collapse or regime shifts, with cascading effects on biodiversity and ecosystem function?	☐ Yes ☐ Potentially ■ No	Although the project activities may slightly affect the dynamics of ecosystems, they are not expected to cause such drastic changes as weakening the resilience of ecosystems to disturbances, making them more susceptible to collapse or regime shifts, with cascading effects on biodiversity and ecosystem function. Moreover, the implementation of various mitigation measures and general environmental management practices ensures that while there may be minor impacts on ecosystem dynamics, they are not expected to lead to significant weakening of ecosystem resilience or drastic regime shifts.
New challenges in effectively incorporating climate change considerations into biodiversity conservation planning, such as identifying climate-resilient habitats and prioritizing species and ecosystems for conservation action?	☐ Yes ■ Potentially ☐ No	The solar project could introduce new challenges in incorporating climate change considerations into biodiversity conservation planning. Therefore, the project activities will include biodiversity considerations as outlined in [5].
Habitat loss, pollution, and overexploitation, amplifying the impacts on biodiversity and complicating conservation efforts?	☐ Yes ☐ Potentially ■ No	As previously mentioned, habitat loss and pollution from the construction of each solar park may lead to minor negative impacts on biodiversity. However, the implementation of various mitigation measures and general environmental management practices ensures that these impacts are minimized. While there may be minor effects on ecosystem dynamics, they are not expected to lead to drastic consequences for biodiversity conservation, preventing significant adverse outcomes.

Table 43: Climate Change safeguards assessment questionnaire.

8.2 Social

8.2.1 Human Rights

8.2.1.1 Labor and Working Conditions

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Forced labor, or human trafficked labor?[8]	☐ Yes ☐ Potentially ■ No	Genneia has a Company Code of Conduct that applies to all officers, directors, employees, contractors, and third parties acting on behalf of Genneia or its subsidiaries (collectively, "the Company"). This Code of Conduct will be available to the CAB and is provided in the file “Code of conduct – Genneia.pdf” included in Annex 07 folder. In the section on human rights, it specifies that no forced labor or trafficked labor is/will be involved in the company and, consequently, in the project activities: "Genneia is committed to providing its employees with a dignified work environment where the individual's integrity is respected. Any behavior that may be offensive to an employee's dignity, forced labor, and/or child labor, whether carried out by internal staff, external clients, suppliers, or subcontractors, will not be tolerated. Harassment, intimidation, and/or lack of respect in any form (verbal, non-verbal, physical, sexual, etc.) are considered unacceptable and will be duly sanctioned."
Child labor or forced labor practices during the project, either directly or within the project's supply chain?	☐ Yes ☐ Potentially ■ No	Already addressed in a previous question (refer to question marked with [8]).

Unsafe working conditions, exposing project stakeholders to potential hazards or accidents before, during and after the implementation of the activities?[9]	☐ Yes ☐ Potentially ■ No	Genneia's Code of Conduct firmly commits to maintaining safe working conditions and minimizing potential hazards or accidents for all stakeholders before, during, and after the implementation of activities. The company adheres to strict policies and provisions related to quality, safety, occupational health, environment, and social matters. These policies are reflected in Genneia's integrated management system (IMS), which is designed to ensure compliance with national, provincial, and municipal regulations[N]. The IMS is based on training, awareness, and the development of a proactive attitude at all levels of the organization. Genneia's work philosophy emphasizes the preservation and protection of life, health, and the physical and psychological integrity of its personnel, clients, and third parties involved in its activities. The company actively works to prevent occupational diseases and injuries by providing its collaborators with the necessary tools for detection and prevention. This comprehensive approach underscores Genneia's dedication to the well-being and safety of all project stakeholders. Also, from the beginning of the construction activities of the project and throughout its various stages, health and safety measures will be implemented to protect personnel working in each solar park. The indicators to monitor health and safety measures are the reports on operational suspensions due to weather, SHyMA meeting attendance and minutes, emergency drill reports, response to hazardous waste spills, bacteriological and physicochemical quality of water for human consumption, traffic and road safety hazards, PM10, and these parameters can be found in Section 16: Monitoring Plan.

[N] Information regarding Genneia's IMS is provided in the 2023 Sustainability Report, pages 161-166. Available in: https://www.genneia.com.ar/docs/Genneia_ReporteSustentabilidad2023_.pdf

Exploitative labor practices, such as inadequate wages, excessive working hours, or poor working conditions for the personnel engaged during the project activities?[10]	☐ Yes ☐ Potentially ■ No	Genneia strictly prohibits exploitative labor practices, including inadequate wages, excessive working hours, and poor working conditions for personnel involved in project activities. The company adheres to a comprehensive Code of Conduct that ensures the rights and dignity of all employees, contractors, and third parties. This Code of Conduct is applied to all individuals acting on behalf of Genneia or its subsidiaries. In the section on human rights, it clearly specifies that any behavior offensive to an employee's dignity, including harassment or intimidation, is considered unacceptable and will be duly sanctioned. This commitment underscores Genneia's dedication to providing a dignified work environment where the individual's integrity is respected.
Discrimination in employment, including unequal opportunities, biased hiring practices, or unfair treatment based on factors such as gender, ethnicity, or other characteristics?[11]	☐ Yes ☐ Potentially ■ No	Genneia maintains a strong commitment to equality and fairness in employment, explicitly prohibiting discrimination in any form. As stated in the human rights section of the Code of Conduct: "Genneia bases employment relations on equal opportunities and fair treatment, and does not discriminate in any aspect, at any stage of this relationship, including recruitment and hiring, compensation (salaries and benefits), working conditions, and terms of employment such as access to training, job assignments, promotions, dismissals, retirements, and disciplinary practices. Therefore, employment decisions are never made based on personal characteristics unrelated to the job requirements; nor does it consider discrimination based on nationality, race, ethnicity, color, age, religion, beliefs, different abilities, gender, sexual orientation, or socioeconomic status. Non-discrimination also applies to migrant workers. Each member of Genneia should be treated fairly, respecting the talents of every employee."
Violating workers' rights, including issues related to freedom of association, collective bargaining, or other fundamental labor rights during the project's activities?[12]	☐ Yes ☐ Potentially ■ No	Genneia is fully committed to upholding workers' rights, including the freedom of association, the right to collective bargaining, and other fundamental labor rights during all project activities. The company's Code of Conduct applies to all officers, directors, employees, contractors, and third parties acting on behalf of Genneia or its subsidiaries, ensuring that these rights are respected and protected.

		Genneia ensures that employees, collaborators, and suppliers have the right to participate in workers' organizations or unions, take part in collective negotiations, and exercise their rights without fear of retaliation or discrimination. The company guarantees that any staff reduction planning is conducted in accordance with current Argentine regulations and the best practices it voluntarily adheres to. Also, Genneia has a Compliance Reporting Policy which underscores the company's commitment to operating with honesty, integrity, and transparency, and mandates compliance with applicable laws. The policy encourages the immediate reporting of any suspected violations, including those related to labor rights, and assures protection against retaliation for good faith reports. The company has established clear channels for reporting, both openly and anonymously, and commits to investigating all reports confidentially. This framework aims to ensure that all workers' rights are respected, and any potential issues are promptly addressed. This Compliace policy will be available to CAB and is provided in the file "Compliance Reporting Policy.pdf" included in Annex 07 folder. By maintaining these standards, Genneia ensures that there are no violations of workers' rights within the company or its project activities.
Unfair treatment, exploitation, or inadequate protections for contractual workers or migrant laborers?	☐ Yes ☐ Potentially ■ No	Already addressed in previous questions (refer to questions marked with [10] and [11]).
Inadequate grievance mechanisms, making it challenging for workers to address concerns, report issues, or seek resolution for labor-related problems?[13]	☐ Yes ☐ Potentially ■ No	Genneia's Code of Conduct establishes comprehensive grievance mechanisms to address concerns and resolve labor-related problems effectively. The company has a robust policy in place for reporting compliance issues, ensuring that all actions are legal and ethical. Employees, as well as agents, suppliers, subcontractors, and clients, are encouraged to report any violations of the company's code, laws, or policies.

		As part of the environmental impact assessments conducted for both solar parks of Instance 01 (PSSU & PSTO III), Genneia supports multiple channels for reporting grievances, including an online complaint form, an email address dedicated to corporate conduct, and physical mailboxes at operational sites. Employees also have the option to report issues directly to their supervisors, the Human Resources Director, Internal Audit, or the Compliance Program Manager. These mechanisms ensure that grievances can be addressed promptly and confidentially. Additionally, Genneia protects employees who report issues in good faith from retaliation or discrimination. This protective stance further underscores the company's commitment to maintaining an ethical work environment and resolving grievances effectively. The availability of multiple reporting channels and the promise of confidentiality and protection suggest that the project activities are well-supported by adequate grievance mechanisms, minimizing the risk of challenges in addressing and resolving labor-related issues.
Insufficient social welfare support, such as healthcare, insurance, or other benefits for workers engaged in project activities?[14]	☐ Yes ☐ Potentially ■ No	In terms of healthcare, for the construction phase of each solar park, the medical area is equipped with skilled outsourced personnel capable of providing first aid, ensuring immediate medical attention is available on-site. Additionally, all personnel are trained to administer first aid, which further enhances the healthcare readiness for any potential incidents that may arise during their work. Insurance and other benefits are also adequately covered. During all phases of the project, all workers will have personal accident insurance or workers' compensation (ART), as mandated by current labor laws. This compliance with legal requirements highlights a strong commitment to the financial and medical protection of their employees, mitigating the risks associated with workplace accidents.

		Furthermore, each solar park implements rigorous safety measures to protect its workforce. Regarding PSSU and PSTO III, hazardous areas are clearly marked with warning signs, and all personnel receive and are trained in the use of necessary personal protective equipment (PPE) to maintain health and safety standards. The use of approved equipment for lifting or lowering tools and materials, as well as the presence of special fire extinguishers for electrical incidents, underscores the company's dedication to creating a safe working environment. Additionally, activities are halted when weather conditions pose a risk, demonstrating a proactive approach to worker safety. All these safety measures will be also implemented for all solar parks included in future instances of the grouped project.
Displacement or negative impacts on local communities due to labor-related issues, including challenges related to employment opportunities and livelihoods?	☐ Yes ☐ Potentially ■ No	The project activities will have several positive impacts on local communities related to labor and employment. **Construction and Operation Phase:** During the construction and operation phase of each solar park, there are several labor-related impacts. One positive impact is the creation of employment opportunities. The project will generate a moderate and temporary increase in demand for direct and indirect employment. This includes jobs in engineering, project management, transportation, excavation, electrical installation, and various support services like personnel transport, supply sales, and catering. This increase in employment can positively affect local livelihoods by providing new job opportunities and economic stimulation through increased consumption of goods and services and tax payments by service companies. **Abandonment Phase:**

		During the abandonment phase of each solar park, there are also labor-related impacts. The decommissioning activities will again create direct and indirect employment, albeit temporarily and to a lesser extent compared to the construction phase. Jobs will be generated in project management, transportation, refilling works, and related services such as personnel transport and catering. This can provide a brief boost to local employment and economic activity. Economically, while there will be some temporary positive effects due to the consumption of goods and services and tax payments, the overall impact is expected to be low. The closure of the solar park represents a moderate negative impact on the electrical infrastructure, as it will result in the loss of significant power contributions to the energy grid, necessitating the search for new energy sources.
Lack of training?	☐ Yes ☐ Potentially ■ No	The project activities involve a strong emphasis on comprehensive training for all personnel involved. In the construction of permanent installations, operation of photovoltaic modules, and dismantling of these modules and associated installations, all electrical installation, maintenance, and repair work is performed exclusively by trained and qualified personnel. This ensures that only individuals with the necessary skills and qualifications undertake these critical tasks, highlighting the project's commitment to expertise and safety. Personnel working on electrical installations are equipped with and trained to use appropriate personal protective equipment (PPE) and clothing. This further underscores the importance placed on safety training. Additionally, personnel involved in operations are trained and authorized to work both with and without electrical tension, demonstrating their readiness for various operational scenarios and further ensuring their safety and efficacy in performing their duties. Before commencing their roles, personnel undergo psychophysical examinations as part of the Project Safety and Security Unit (PSSU) requirements. This indicates that the company not only ensures technical competence but also assesses the overall fitness of its employees for their respective roles. This holistic approach to personnel assessment ensures that employees are physically and mentally prepared for their tasks.

		All personnel handling tools, construction equipment, and heavy vehicles are required to undergo specific training for these tasks. The operation of vehicles, in particular, is carried out by individuals knowledgeable in professional driving practices, ensuring safe and efficient transportation. This comprehensive training extends to supervisors, equipment operators, and sling handlers, who are trained and competent in the use of lifting equipment and relevant techniques. This ensures that every aspect of equipment handling and operational safety is meticulously covered. Beyond operational safety, the training also includes specific programs for own staff, contractors, and third parties on waste management and environmental issues. This indicates a broad and inclusive approach to training that encompasses not only operational efficiency and safety but also environmental sustainability and proper waste management practices.

Table 44: Labor and Working Conditions safeguards assessment questionnaire.

8.2.1.2 Gender equality and Women empowerment

Could the project activities entail or result in:	**Response**	**Mitigation/Preventive action, or justification for the response**
Gender-based discrimination in employment opportunities, recruitment processes, or access to leadership positions, hindering women's participation and advancement?[15]	☐ Yes ☐ Potentially ■ No	Part of this already addressed in a previous question (refer to question marked with [11]). Genneia is actively working to prevent gender-based discrimination in employment opportunities, recruitment processes, and access to leadership positions, thereby promoting women's participation and advancement.

		Genneia promotes gender equity in the workplace by empowering women and ensuring equal opportunities for employment and training. The company strives for the full and effective participation of women in the workforce, contributing to the United Nations Sustainable Development Goal (SDG) 5: achieving gender equality and empowering all women and girls. Recognizing the relatively low participation of women in the renewable energy sector in Argentina, Genneia has taken an active role in increasing their involvement and promoting gender equality within the energy industry. Additionally, as part of its commitment to the "2X Challenge," an initiative by G7 Development Finance Institutions to mobilize investments towards gender equality in the private sector, Genneia has set ambitious gender-related goals and some of them are shown below[O]. In 2022, Genneia conducted a self-assessment based on the Women's Empowerment Principles (WEPs) to identify gaps and opportunities for action in this area[P]. This assessment led to a series of initiatives aimed at improving gender equality. Also, Genneia established a Gender and Diversity Commission within its Sustainability Committee. This commission is tasked with setting the company's Diversity Policy, fostering integrated teams, and promoting equal opportunities and fair treatment without bias. The commission includes representatives from Human Capital, Sustainability, Finance, Corporate Affairs, Compliance, and Communication. As part of the 2023 Gender Equality commitments, in December 2023, the commission launched the company's first Diversity and Inclusion Policy[Q].

[O] Information provided in the 2023 Sustainability Report, page 93. Available in: https://www.genneia.com.ar/docs/Genneia_ReporteSustentabilidad2023_.pdf

[P] Information provided in the 2022 Sustainability Report, page 90. Available in: https://www.genneia.com.ar/reportes/reporte-2022.pdf

[Q] Information provided in the 2023 Sustainability Report, page 91. Available in: https://www.genneia.com.ar/docs/Genneia_ReporteSustentabilidad2023_.pdf

		Genneia's commitment to gender diversity and equality is evident from its efforts to increase the proportion of women in its workforce to 30% by 2027. Currently, while the participation of women in operational and technical areas is around 14%, it rises to 47% in staff or service areas, while in 2022 these values were around 10% and 39% respectively. In terms of promotions, 9% of women saw an increase in their responsibilities and a change in their category and salary conditions, compared to 11% of men. In addition, women representation increased by 27% in 2023, compared to 24% in 2022[R].
Unequal access to project benefits, resources, or decision-making processes, resulting in disparities between men and women in the distribution of project-related opportunities and rewards?	☐ Yes ☐ Potentially ■ No	Already addressed in previous questions (refer to questions marked with [12] and [15]).
Limited participation and representation of women in project activities, consultations, or community engagements, potentially marginalizing their voices and perspectives?	☐ Yes ☐ Potentially ■ No	Already addressed in previous questions (refer to questions marked with [12] and [15]).

[R] Information provided in the 2023 Sustainability Report, pages 93-94. Available in: https://www.genneia.com.ar/docs/Genneia_ReporteSustentabilidad2023_.pdf

Increasing unpaid care work burden on women, such as caregiving responsibilities or household chores, due to changes in community dynamics or time constraints resulting from project activities?	☐ Yes ☐ Potentially ■ No	To address whether project activities could result in increasing the unpaid care work burden on women, such as caregiving responsibilities or household chores, due to changes in community dynamics or time constraints, the following aspects from Genneia's 2023 Sustainability Report can be referred: **Maternity Leave**: The report highlights that in 2022, 100% of female employees returned to work after their maternity leave and subsequent leave of absence. This indicates a supportive approach to work-life balance and suggests that maternity-related leave is not contributing to increased unpaid care work burdens[S]. **Gender and Diversity Commission**: Genneia established a Gender and Diversity Commission in 2022. This commission is focused on creating a Diversity Policy to promote equal opportunities and fair treatment, and to build inclusive teams. The commission's activities aim to address gender disparities and improve workplace equality, which could potentially alleviate any increased unpaid care work burden by fostering a more supportive work environment for women[Q]. **Salary Equity**: Efforts are being made to ensure salary equity between men and women for work of equal responsibility. While this primarily addresses pay equity, it also supports broader gender equality goals that could indirectly influence work and care dynamics by ensuring fair compensation for all employees[T].

[S] Information provided in the 2022 Sustainability Report, page 97. Available in: https://www.genneia.com.ar/reportes/reporte-2022.pdf

[T] Information provided in the 2023 Sustainability Report, page 95. Available in: https://www.genneia.com.ar/docs/Genneia_ReporteSustentabilidad2023_.pdf

Limited access to education, training, or capacity-building opportunities for women and girls, inhibiting their ability to develop skills and pursue leadership roles within the project or related industries?	☐ Yes ☐ Potentially ■ No	Already addressed in a previous question (refer to question marked with [11]).
Gender-based violence or harassment occurring within project settings or project-affected communities, affecting women's safety, well-being, and ability to participate fully?	☐ Yes ☐ Potentially ■ No	Already addressed in previous questions (refer to questions marked with [10] and [11]).
Inequitable access to land, natural resources, or economic opportunities, particularly disadvantaging women in rural or indigenous communities affected by land use changes?	☐ Yes ☐ Potentially ■ No	There are no rural communities identified nearby the project areas of Instance 01: For PSSU, the study area will not affect local residents as there are no neighboring receptors. The nearest populated center is Villa Ibáñez, located approximately 9 km in a straight line to the southwest. For PSTO III, the study area will not have a direct negative impact on local residents as there are no neighboring receptors. The nearest populated center is Villa Nueva, located approximately 26 km in a straight line to the southwest. There are no indigenous communities identified nearby the project areas for Instance 01 (refer to section 4). Future instances of the grouped project will only include solar parks that are not located in areas where their development could negatively impact rural or indigenous communities through land use changes or lead to inequitable access to natural resources or economic opportunities. Compliance with this criterion will be a mandatory requirement for all solar parks within the grouped project.

Underrepresentation of women in decision-making processes, including planning, governance structures, or stakeholder consultations, leading to less inclusive and effective outcomes?	☐ Yes ☐ Potentially ■ No	Already addressed in previous questions (refer to questions marked with [12] and [15]).
Gender-blind policies, interventions, or project designs that fail to consider the specific needs, priorities, and capacities of women and men, resulting in unintended negative consequences for gender equality and women empowerment?	☐ Yes ☐ Potentially ■ No	Already addressed in previous questions (refer to questions marked with [12] and [15]).
Limited economic empowerment and livelihood opportunities for women, such as access to credit, entrepreneurship support, or income-generating activities, within project-affected communities?	☐ Yes ☐ Potentially ■ No	At a company level, Genneia's 2023 Sustainability Report highlights the company's commitment to gender equality, aiming for 30% female representation by 2027. Initiatives include the creation of the Gender and Diversity Commission to promote gender equality within the company and the broader energy industry. Efforts to ensure non-discrimination and equal opportunities are emphasized, including in recruitment and promotion processes. Additionally, the report indicates that efforts are being made to achieve salary equity between men and women. These measures indicate that the project actively supports the economic empowerment of women, including access to employment, career advancement opportunities, and equitable compensation.

Health and safety risks that disproportionately affect specific genders within the community, potentially leading to disparate impacts on men and women?	☐ Yes ☐ Potentially ■ No	As already addressed in the question marked with [14], safety measures are implemented to ensure the health of all employees involved in the project activities. Regarding disparities with respect to these measures for women, as mentioned in the question marked with [11], the company's Code of Conduct establishes a strong commitment to equality and fairness in employment, explicitly prohibiting discrimination in any form.
Cultural and social barriers that may hinder the advancement of gender equality and women empowerment within project settings or affected communities, such as stereotypes, norms, or traditional roles and expectations?	☐ Yes ☐ Potentially ■ No	At a company level, Genneia's 2023 Sustainability Report details various initiatives to promote gender equality and challenge stereotypes. The creation of the Gender and Diversity Commission and the incorporation of gender perspectives in company policies and training reflect efforts to address cultural and social barriers.
Inadequate gender analysis and monitoring mechanisms, resulting in a lack of understanding of gender dynamics and missed opportunities for promoting gender equality and women empowerment?	☐ Yes ☐ Potentially ■ No	Genneia conducted a self-assessment of the Women's Empowerment Principles (WEPs) in 2022 to identify gaps and opportunities in promoting gender equality. Also, the company also participates in the "2X Challenge," which aims to mobilize investments for gender equality. These actions are part of the company's commitment to understanding and addressing gender dynamics through systematic analysis and monitoring. The development of a gender roadmap and ongoing training for staff in diversity and inclusion further support this commitment.

Table 45 (previous page): Gender equality and Women empowerment safeguards assessment questionnaire.

8.2.1.3 Land Acquisition, Restrictions on Land Use, Displacement, and Involuntary Resettlement

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Conflict over land resources and/or rights, such as competition for space between different land uses, communites, or stakeholders affected by the project?[16]	☐ Yes ☐ Potentially ■ No	For PSSU, the study area will not affect local residents as there are no neighboring receptors. The nearest populated center is Villa Ibáñez, located approximately 9 km in a straight line to the southwest. For PSTO III, the study area will not have a direct negative impact on local residents as there are no neighboring receptors. The nearest populated center is Villa Nueva, located approximately 26 km in a straight line to the southwest. Future instances of the grouped project will only include solar parks that do not pose a risk of conflict over land resources and/or rights, such as competition for space between different land uses, communities, or stakeholders affected by the project. Ensuring the absence of such conflicts will be a mandatory requirement for all solar parks within the grouped Project, and proper justification will be provided as is the case for Instance 01 in this document. Additionally, the stakeholder identification system implemented to detect any potential impact on stakeholders is addressed in detail in section 9: Stakeholder engagement and consultation.
Land acquisition, leading to changes in land ownership patterns and potential conflicts with local communities and landholders?	☐ Yes ☐ Potentially ■ No	Already addressed in the previous question (refer to question marked with [16]).

Imposing restrictions on traditional land use practices, affecting the livelihoods and cultural practices of communities in the project area?	☐ Yes ■ Potentially ☐ No	In a very small scale, not evident prior to the construction of the solar park, the implementation of PSSU lead to a loss of livestock productive land. This was addressed in a previous question (refer to question marked with [1]).
Displacing communities or residents from their homes and lands, leading to social, economic, and cultural disruptions?	☐ Yes ☐ Potentially ■ No	Already addressed in a previous question (refer to question marked with [16]).
Involuntary resettlement or relocation of communities, impacting their access to resources, services, and community networks?	☐ Yes ☐ Potentially ■ No	Already addressed in a previous question (refer to question marked with [16]).
Communities losing their livelihoods and agricultural productivity as a result of land acquisition or restriction on land use?	☐ Yes ■ Potentially ☐ No	In a very small scale, not evident prior to the construction of the solar park, the implementation of PSSU lead to a loss of livestock productive land. This was addressed in a previous question (refer to question marked with [1]).
Insufficient compensation and benefits for affected communities and individuals, leading to economic hardships and social discontent?	☐ Yes ☐ Potentially ■ No	The environmental impact assessments conducted for both solar parks of Instance 01 (PSSU & PSTO III) address the potential impact on local employment, both direct and indirect. It primarily focuses on the creation of jobs rather than loss, suggesting a positive impact on employment opportunities for the local population. For example, PSSU is expected to generate between 120 and 800 new jobs the implementation of both solar parks as workforce for all its stages. This also applies for future instances of this grouped project.

		The construction and operation of the project solar parks are expected to boost the local economy through increased employment, higher household incomes, and enhanced economic activity from the consumption of goods and services. The project will also positively impact local businesses, especially those involved in equipment maintenance, and improve electrical infrastructure, providing long-term benefits. Although the influx of external workers during construction might temporarily raise the cost of living due to higher demand for housing and services, these effects are likely to be short-term. Overall, the long-term economic benefits and infrastructure improvements are anticipated to outweigh any temporary cost increases.
Lack of free, prior, and informed consent from affected communities, potentially resulting in conflict and challenges to project implementation?	☐ Yes ☐ Potentially ■ No	This was addressed as part of the stakeholder's consultation process, which is discussed in detail in Section 9.
Social and cultural disintegration within displaced communities, leading to the erosion of social cohesion and cultural practices?	☐ Yes ☐ Potentially ■ No	Already addressed in a previous question (refer to question marked with [16]).

Communities losing access to common resources, such as forests, water bodies, or grazing lands, due to land acquisition or use restrictions?	☐ Yes ■ Potentially ☐ No	As previously mentioned, for Instance 01 there are no rural or indigenous communities in the vicinity of either PSSU or PSTO III. However, land designated for productive use was degraded during the construction of the solar parks. In the case of PSSU, the construction of permanent facilities resulted in a permanent, moderate, and localized impact due to soil erosion and the modification of the herbaceous layer, affecting land previously used on a small scale for extensive livestock activities. However, prior to the project, the soil in the area had not undergone sustained intervention for production purposes, thus this impact was minimal. Also, measures are also being implemented to mitigate this impact (refer to question marked with [1]). In contrast, for PSTO III, aside from undocumented transhumance activities, no significant productive activity was observed, so the modification of land use is not expected to have a significant negative impact on productivity. For future instances of the grouped project, it will be ensured that no communities are adversely affected in their access to common resources, or, if any impact occurs, that it remains minimal and fully mitigated, as demonstrated in Instance 01.
Inadequate resettlement plans, potentially leading to insufficient support, services, and infrastructure for resettled communities?	☐ Yes ☐ Potentially ■ No	Already addressed in a previous question (refer to question marked with [16]).

Table 46: Land Acquisition, Restrictions on Land Use, Displacement, and Involuntary Resettlement safeguards assessment questionnaire.

8.2.1.4 Indigenous people and Cultural Heritage

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Violating the right of indigenous peoples, including their right to land, resources, and self-determination?	☐ Yes ☐ Potentially ■ No	As already mentioned in Section 4 of this document, the grouped project complies with the protection of Indigenous Peoples' rights, ensuring that no instance violates these rights. For both solar parks of Instance 01, no indigenous communities were identified, thus this question does not apply.
Impacts on indigenous lands and territories, potentially leading to the displacement of indigenous communities and disruption and loss of livelihoods?	☐ Yes ☐ Potentially ■ No	As already mentioned in Section 4 of this document, the grouped project complies with the protection of Indigenous Peoples' rights, ensuring that no instance violates these rights. This means that any impact on indigenous lands and territories that could potentially lead to the displacement of indigenous communities, or the disruption and loss of their livelihoods is strictly prohibited for any instance of the grouped project. Therefore, solar parks will not be built in territories where such consequences could occur. For both solar parks of Instance 01, no indigenous communities were identified, thus this question does not apply.
Negatively impacting the traditional livelihoods, such as hunting, fishing, or gathering, due to changes in land use or environmental conditions?	☐ Yes ☐ Potentially ■ No	As already mentioned in Section 4 of this document, the grouped project complies with the protection of Indigenous Peoples' rights, ensuring that no instance violates these rights. This means that any negative impact on the traditional livelihoods, such as hunting, fishing, or gathering, due to changes in land use or environmental conditions is strictly prohibited for any instance of the grouped project. Therefore, solar parks will not be built in territories where such consequences could occur. For both solar parks of Instance 01, no indigenous communities were identified, thus this question does not apply.

Losing sacred sites and cultural heritage, impacting the spiritual and cultural identity of indigenous communities?	☐ Yes ☐ Potentially ■ No	As already mentioned in Section 4 of this document, the grouped project complies with the protection of Indigenous Peoples' rights, ensuring that no instance violates these rights. Thus, any project activity causing the loss of sacred sites and cultural heritage, impacting the spiritual and cultural identity of indigenous communities is strictly prohibited for any instance of the grouped project. Therefore, solar parks will not be built in territories where such consequences could occur. For both solar parks of Instance 01, no indigenous communities were identified, thus this question does not apply.
The lack of free, prior and informed consent from indigenous communities (FPIC), potentially resulting in conflicts and challenges to project implementation?	☐ Yes ☐ Potentially ■ No	For all instances of the grouped project (current and future), the presence of indigenous communities within each solar park's area of influence will be identified as part of the stakeholder identification and communication process (see Section 9 of this document). If indigenous communities are identified, efforts will be made to communicate the existence of the corresponding project (or solar park) to them; to obtain their free, prior and informed consent; and collect all their comments and concerns will be properly addressed, ensuring that their rights to land, resources, and self-determination are fully respected. For both solar parks of Instance 01, no indigenous communities were identified, thus this question does not apply.
Inadequate cultural impact assessments, potentially leading to insufficient understanding of the project's impact on indigenous cultures and traditions?	☐ Yes ☐ Potentially ■ No	For all instances of the grouped project (current and future), steps 3 through 6 of the stakeholder engagement and consultation process (refer to section 9 of this document) ensure that potential risks and impacts on stakeholders are identified, appropriate action plans are defined, and, where relevant, the project and its associated risks are communicated to stakeholders. This process includes addressing the potential for cultural impacts on indigenous communities, which will be communicated to the relevant community if such impacts occur. For both solar parks of Instance 01, no indigenous communities were identified, thus this question does not apply.

Losing indigenous knowledge and practices related to land management, resource utilization, and traditional ecological knowledge?	☐ Yes ☐ Potentially ■ No	As already mentioned in Section 4 of this document, the grouped project complies with the protection of Indigenous Peoples' rights, ensuring that no instance violates these rights. Thus, any project activity causing the loss of indigenous knowledge and practices related to land management, resource utilization, and traditional ecological knowledge is strictly prohibited for any instance of the grouped project. Therefore, solar parks will not be built in territories where such consequences could occur. For both solar parks of Instance 01, no indigenous communities were identified, thus this question does not apply.
Cultural disintegration and the erosion of social cohesion within indigenous communities?	☐ Yes ☐ Potentially ■ No	As already mentioned in Section 4 of this document, the grouped project complies with the protection of Indigenous Peoples' rights, ensuring that no instance violates these rights. Thus, any project activity causing cultural disintegration and the erosion of social cohesion within indigenous communities is strictly prohibited for any instance of the grouped project. Therefore, solar parks will not be built in territories where such consequences could occur. For both solar parks of Instance 01, no indigenous communities were identified, thus this question does not apply.
Inadequate recognition and respect for indigenous governance systems, potentially leading to conflicts over land and resource management?	☐ Yes ☐ Potentially ■ No	For all instances of the grouped project (current and future), steps 3 through 6 of the stakeholder engagement and consultation process (refer to section 9 of this document) ensure that potential risks and impacts on stakeholders are identified, appropriate action plans are defined, and, where relevant, the project and its associated risks are communicated to stakeholders. In the event that indigenous communities are involved with any future solar park within the grouped project, the stakeholder engagement process will ensure the recognition and respect of indigenous governance systems, preventing conflicts over land and resource management. For both solar parks of Instance 01, no indigenous communities were identified, thus this question does not apply.

Insufficient benefit-sharing mechanisms, resulting in the unequal distribution of benefits derived from the project among indigenous communities?	☐ Yes ☐ Potentially ■ No	For all instances of the grouped project (current and future), steps 3 through 6 of the stakeholder engagement and consultation process (refer to section 9 of this document) ensure that potential risks and impacts on stakeholders are identified, appropriate action plans are defined, and, where relevant, the project and its associated risks are communicated to stakeholders. In the event that indigenous communities are involved with any future solar park within the grouped project, the stakeholder engagement process will ensure the adequate implementation of benefit-sharing mechanisms (if applicable), resulting in the correct distribution of benefits derived from the project among indigenous communities. For both solar parks of Instance 01, no indigenous communities were identified, thus this question does not apply.
Conflicts arising over land rights, particularly when the project involves changes in land use that may be contested by different stakeholders, including indigenous communities?	☐ Yes ☐ Potentially ■ No	All solar parks within this grouped project will be constructed on lands where Genneia is the sole owner, ensuring that these lands cannot be contested by other stakeholders, including indigenous communities.

Table 47: Indigenous people and Cultural Heritage safeguards assessment questionnaire.

8.2.1.5 Community health and safety

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Exposure to hazardous materials, chemicals, or pollutants, potentially leading to adverse health effects or life-threatening risks?	☐ Yes ■ Potentially ☐ No	Regarding nearby communities, there is no risk of exposure to hazardous materials, chemicals, or pollutants outside solar parks. However, within each solar park this risk exists for all employees and people directly involved in the project activities, as addressed in question marked with [2].

Degrading air quality in the project area due to emissions, dust, or other airborne pollutants?	■ Yes ☐ Potentially ☐ No	Already addressed in a previous question (refer to question marked with [6]).
Water contamination, including pollution of water sources or reduced access to clean water, affecting community health and well-being?	☐ Yes ■ Potentially ☐ No	Already addressed in a previous question (refer to question marked with [2]).
Increased noise levels or vibrations resulting from project operations, potentially causing disturbances and health impacts for nearby communities?	☐ Yes ■ Potentially ☐ No	During the construction phase, noise levels in the project areas will experience a slight increase due to activities such as soil movement, vehicle circulation, and the operation of machinery. This increase, described as mild, suggests that while there will be an audible rise in noise, it is not expected to be severe or highly disruptive to the nearby communities. Similarly, in the abandonment phase, there will be a mild increase in noise levels associated with the operation of vehicles and equipment necessary for dismantling and other related tasks. Again, the noise is expected to be noticeable but not significantly disturbing, maintaining a mild impact. In this context, for PSSU and PSTO III, environmental impact assessments, including measurements of workplace noise according to IRAM 4062:2016 standards, are conducted. The indicator will be the noise in the workplace environment (dB) to determine whether they are harmful or safe during different phases of each solar park and assess potential impacts on neighboring areas. This parameter is detailed in Section 16: Monitoring Plan. To mitigate the noise impact from vehicle circulation and operation, contractors will be required to undergo Technical Vehicle Verification. This verification aims to reduce diffuse emissions of combustion gases and noise from poorly maintained vehicles, ensuring that noise pollution and its potential disturbances to nearby communities are minimized.

		While project operations will lead to increased noise levels, these increases are anticipated to be mild and manageable. The proactive measures in place, such as technical vehicle verification, demonstrate the project's commitment to minimizing potential disturbances and health impacts on nearby communities. Therefore, although there is an expected rise in noise levels, the mitigation strategies should effectively reduce any significant negative effects. The indicator "noise in the workplace environment" will allow to track the effectiveness of these mitigation measures.
Traffic accidents or road safety hazards associated with increased traffic flow or transportation activities related to the project?	☐ Yes ■ Potentially ☐ No	The project activities could lead to traffic accidents or road safety hazards due to the increased traffic flow and transportation activities associated with the project. During construction phase of each solar park, the project will introduce additional traffic to a moderately trafficked corridor, resulting in a negative and temporary impact on road infrastructure. Similarly, for the case of PSSU and PSTO III, maintenance activities will temporarily affect traffic on RP N°54 (PSSU) and RP N°412 (PSTO III), potentially leading to road safety hazards. Furthermore, the removal of waste and equipment parts will negatively and temporarily impact nearby road corridors, increasing the risk of traffic congestion and accidents. To address these risks, Genneia has implemented a contingency plan aimed at managing the risk of traffic and personnel accidents (see section 7.1). The contingency plan includes measures to ensure the safety of vehicles and involved persons, such as signaling the accident location and attending to and assessing injuries. If necessary, the plan includes notifying the insurance company, involving local police, and utilizing workplace accident insurance (ART) and medical emergency services. The indicator to monitor the correct implementation of the contingency measures will be the traffic and road safety hazards including the record of the number of incidents and impacts to traffic flow. This parameter is detailed in Section 16: Monitoring Plan.
Workers exposure to hazardous conditions, physical attacks or inadequate safety measures?	☐ Yes ■ Potentially ☐ No	Already addressed in previous questions (refer to questions marked with [9] and [13]).

Increased prevalence of vectorborne diseases or pest infestations as a result of changes in environmental conditions or habitat disruption?[17]	☐ Yes ■ Potentially ☐ No	The project activities could potentially lead to an increased prevalence of vectorborne diseases or pest infestations due to changes in environmental conditions or habitat disruption. During the abandonment phase, while the disassembly of panels will positively impact the habitat by removing significant negative impacts, there is still a risk of temporary and mild negative effects if waste is not managed appropriately. This could lead to a temporary increase in the population of vectors, which, in turn, could contribute to the spread of vectorborne diseases. These vectors can serve as prey for certain bird, reptile, and amphibian species, wich could be negatively impacted by the project activities, thus potentially increasing vectors presence if waste is not managed correctly. However, measures to mitigate these impacts, i.e. managing waste adequately and avoiding negative impacts to birds, reptiles and amphibian species are in place (refer to questions marked with [2], [5] and [7]).
Community displacement or involuntary resettlement, leading to social disruption, stress, and negative health outcomes?[18]	☐ Yes ☐ Potentially ■ No	The project activities are unlikely to lead to community displacement or involuntary resettlement, which could cause social disruption, stress, and negative health outcomes. For the PSSU and PSTO III, the studies indicate that there will be no impact on local populations, as there are no adjacent residents. The nearest populated areas are Villa Ibáñez, located approximately 9 kilometers southwest of PSSU, and Villa Nueva, located about 26 kilometers southwest of PSTO III. For future stages, the company ensures that the construction will be made on lands that do not displace local communities. This proactive measure demonstrates a commitment to avoiding any potential issues related to community displacement or involuntary resettlement. Hence, the likelihood of social disruption, stress, and negative health outcomes due to these project activities is minimized.

Community mental health and well-being, including stress, anxiety, and social isolation resulting from changes in living conditions or community dynamics?	☐ Yes ■ Potentially ☐ No	As stated in question [18], since there are no nearby communities to the solar parks of Instance 01, it is unlikely that the project activities will affect communities, leading to changes in community mental health and well-being, including stress, anxiety, and social isolation resulting from changes in living conditions or community dynamics. However, it is acknowledged that due to indirect impacts previously described in earlier questions, nearby communities may be slightly affected in terms of their well-being. To mitigate these possible effects, the project plans to inform the local population about the characteristics of the construction and its duration. This proactive communication strategy includes providing a phone number and an email address where individuals can present complaints and concerns related to the project. These channels will be managed according to the company's third-party communication procedure. The indicator to monitor this mitigation measure will be the community mental health and well-being by assessing the number of complaints and concerns related to the project formally received by community members. This parameter can be found in Section 16: Monitoring Plan.
Inadequate emergency preparedness and response mechanisms, leading to challenges in managing and mitigating potential health and safety emergencies?[19]	☐ Yes ☐ Potentially ■ No	As described in section 7.1, in order to manage risks and quickly respond to emergencies, a contingency plan was implemented for both PSSU and PSTO III. This plan involves actions to manage emergencies and mitigate risks related to health and safety of working personnel and, eventually, nearby communities. This will also be implemented for future instances of this grouped project. Also, questions [9] and [14], address this topic.
Changes in land use patterns, such as increased exposure to disease vectors or decreased access to natural resources essential for health?	☐ Yes ■ Potentially ☐ No	Regarding increased exposure to vector, this was already addressed in question [17]. Regarding decreased access to natural resources essential for health, this was already addressed in questions [2] and [3].

Inadequate health infrastructure and services in the project area, leading to challenges in addressing community health needs and emergencies?	☐ Yes ☐ Potentially ■ No	Already addressed in previous questions (refer to questions marked with [9], [14] and [19]).

Table 48: Community health and safety safeguards assessment questionnaire.

8.2.2 Corruption

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Funds allocated for the project/initiative being misappropriated or embezzled through fraudulent practices or kickbacks?	☐ Yes ☐ Potentially ■ No	Genneia has strict policies prohibiting the misappropriation of funds, embezzlement, and kickbacks. Gennia's Code of Conduct explicitly states that no business will be conducted with clients who do not engage in legitimate business activities or use funds from illegitimate sources.
Bribery or kickbacks being solicited or offered to secure contracts, permits, or other project-related approvals?	☐ Yes ☐ Potentially ■ No	Genneia's Code of Conduct strictly prohibits offering or receiving bribes or kickbacks to influence any act or decision to obtain or retain business. This includes small payments intended to expedite administrative processes.
Nepotism or favoritism in the selection of contractors, suppliers, or project personnel, compromising the integrity and fairness of procurement processes?	☐ Yes ☐ Potentially ■ No	The Code of Conduct emphasizes on transparency and fairness in business dealings, ensuring that practices such as nepotism of favoritism would not be tolerated.

Fraudulent reporting or manipulation of project data, such as inflating project costs or overstating achievements, to obtain additional funding or meet performance targets?	☐ Yes ☐ Potentially ■ No	The Code of Conduct emphasizes the importance of transparency and compliance with anti-corruption laws, suggesting that fraudulent reporting or data manipulation would be against the company's policies.
Conflicts of interest among project stakeholders or personnel, such as individuals with financial interests in project outcomes or decision-makers with personal connections to project contractors?	☐ Yes ☐ Potentially ■ No	This is addressed in Section 9: Stakeholder engagement and consultation.
Lack of transparency in project decision-making processes, budget allocations, or contract awards, leading to suspicions of corruption or malpractice?	☐ Yes ☐ Potentially ■ No	The Code of Conduct underscores the commitment to transparency and fair business practices, implying that lack of transparency would not be acceptable.
Weak regulatory oversight or enforcement mechanisms, allowing for corrupt practices to go undetected or unaddressed within project/initiative activities?	☐ Yes ☐ Potentially ■ No	Genneia commits to complying with applicable laws and regulations, including anti-corruption and anti-money laundering laws, suggesting that regulatory oversight is considered important.

Undue influence or pressure exerted by external parties, such as political figures or industry lobbyists, to sway project decisions or gain unfair advantages?	☐ Yes ☐ Potentially ■ No	The Code of Conduct explicitly prohibits offering or giving any type of favor or payment to public officials or employees of public companies to influence decisions, indicating a stance against undue influence.
Inadequate accountability mechanisms or whistleblower protection, discouraging individuals from reporting instances of corruption or unethical behavior?	☐ Yes ☐ Potentially ■ No	The project activities at Genneia are unlikely to suffer from inadequate accountability mechanisms or whistleblower protection that would discourage individuals from reporting instances of corruption or unethical behavior. Genneia's Compliance Reporting Policy emphasizes the importance of transparency, integrity, and compliance with the law, and provides robust mechanisms for reporting violations. Employees, contractors, and third parties are encouraged to report any suspected misconduct through various channels, including direct reporting to supervisors, Human Resources, Internal Audit, or the Compliance Program Officer. Anonymity is an option, although open reporting is preferred for better follow-up. The policy ensures that all reports are taken seriously and investigated confidentially. Moreover, it explicitly prohibits retaliation against whistleblowers, offering protection to those who report in good faith. This comprehensive framework fosters an environment where individuals feel supported and safe to report unethical behavior, ensuring that accountability is maintained.
Corruption in the environmental permitting process, such as officials accepting bribes to overlook environmental violations or grant permits unlawfully?	☐ Yes ☐ Potentially ■ No	The Code of Conduct prohibits bribery and corruption in all business dealings, including with public officials, which would cover the environmental permitting process.

Corruption within subcontracting relationships, such as subcontractors paying bribes to secure favorable terms or win subcontracting opportunities?	☐ Yes ☐ Potentially ■ No	The Code of Conduct states that business will not be conducted with third parties who do not share the commitment to legal and corruption-free business practices, implying that such corrupt practices would not be tolerated.

Table 49 (previous page): Corruption safeguards assessment questionnaire.

8.2.3 Economic Impact

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Compromising healthy competition, resulting in unhealthy rivalry and undermining collaboration and cooperation essential for achieving project goals?	☐ Yes ☐ Potentially ■ No	The Code of Conduct document from Genneia emphasizes the importance of avoiding conflicts of interest and acting with integrity and good faith. This suggests that measures are in place to prevent unhealthy competition and rivalry within the company.
Loss of employment opportunities, particularly for vulnerable populations, as a result of changes in economic activities or restructuring?[20]	☐ Yes ☐ Potentially ■ No	The environmental impact assessments conducted for both solar parks of Instance 01 (PSSU & PSTO III) address the potential impact on local employment, both direct and indirect. It primarily focuses on the creation of jobs rather than loss, suggesting a positive impact on employment opportunities for the local population. For example, PSSU is expected to generate between 120 and 800 new jobs the implementation of both solar parks as workforce for all its stages. This also applies for future instances of this grouped project.

Creating economic dependence, such as tourism or conservation initiatives, leading to vulnerability to fluctuations in project funding or market conditions?	☐ Yes ☐ Potentially ■ No	Not applicable, since the project activities cannot lead to these economic dependences.
Market distortions or increased competition, such as changes in land use patterns or shifts in supply and demand dynamics within local economies?	☐ Yes ☐ Potentially ■ No	The environmental impact assessments evaluate potential effects on local economies, including changes in monetary flow and land use patterns. All identified impacts are positive, benefiting local economies without causing market distortions or increasing competition as a result of the project's implementation[U].
Increasing the cost of living for local communities as a consequence of project-related developments, such as infrastructure projects or influxes of external workers?[21]	☐ Yes ☐ Potentially ■ No	The construction and operation of the project solar parks are expected to boost the local economy through increased employment, higher household incomes, and enhanced economic activity from the consumption of goods and services. The project will also positively impact local businesses, especially those involved in equipment maintenance, and improve electrical infrastructure, providing long-term benefits. Although the influx of external workers during construction might temporarily raise the cost of living due to higher demand for housing and services, these effects are likely to be short-term. Overall, the long-term economic benefits and infrastructure improvements are anticipated to outweigh any temporary cost increases.

[U] Environmental Impact Assessments for both Parks of Instance 01 are available in Annex 07, that will be provided to the CAB. Positive impacts in local economies are mentioned on pages 75 & 79 for PSSU, and pages 83 & 86 for PSTO III.

Inequitable distribution of benefits, leading to disparities in wealth, income, or access to resources among different segments of the population?	☐ Yes ☐ Potentially ■ No	Economically, this project is dedicated to creating employment opportunities and addressing socio-economic impacts, with a concerted effort to ensure the equitable distribution of benefits.
Losing traditional economic practices and knowledge systems, potentially undermining cultural heritage and resilience to economic shocks in communities?	☐ Yes ☐ Potentially ■ No	It is a mandatory requirement for all instances of the grouped project that the construction and implementation of the solar parks take place in regions where they do not negatively impact the economy of nearby communities. This ensures that the development of solar parks does not lead to the loss of traditional economic practices and knowledge systems, which could undermine cultural heritage and reduce community resilience to economic shocks. As is the case of Instance 01, future instances will undergo environmental impact assessments prior to the construction of solar parks to evaluate these aspects. Additionally, the project will be communicated to nearby communities as part of the stakeholder consultation process to obtain stakeholder consent and appropriately address their comments and concerns.
Negatively impacting small-scale enterprises or informal economies that rely on natural resources or ecosystem services?	☐ Yes ☐ Potentially ■ No	The environmental impact assessments indicate that the project activities have little to no impact on natural resources (refer to Tables 40 and 41), and all negative impacts are correctly addressed with mitigation actions. Additionally, potential impacts on ecosystems have been considered, and measures are in place to mitigate them (refer to Table 42). Therefore, it is expected that there will be no negative impact on small-scale enterprises or informal economies that rely on natural resources or ecosystem services.
Financial uncertainties, such as project delays, budget overruns, or changes in funding sources, affecting investment confidence and economic stability?	☐ Yes ☐ Potentially ■ No	As part of, Genneia's Enterprise Risk Management System (ERM), financial risks are correctly addressed and managed for avoiding these types of uncertainties (refer to section 7).

Limited access to financial resources, such as credit or microfinance services, for entrepreneurs or smallholders affected by project-related changes in land use or economic activities?	☐ Yes ☐ Potentially ■ No	This was addressed as part of the stakeholders consultation process, which is discussed in detail in Section 9.
Lack of economic resilience and adaptive capacity within project-affected communities, particularly in response to external shocks or long-term changes in market conditions?	☐ Yes ☐ Potentially ■ No	The environmental impact assessments conducted for PSSU & PSTO III highlight the importance of managing socio-economic impacts and creating employment, which contributes to the economic resilience and adaptive capacity of affected communities.
Inadequate compensation or mitigation measures for economic impacts, such as loss of assets or disruptions to income streams, experienced by individuals or communities?	☐ Yes ☐ Potentially ■ No	As part of, Genneia's ERM, financial risks are correctly addressed and mitigation measures are in place for avoiding these types of economic impacts (refer to section 7).

Table 50: Economic Impact safeguards assessment questionnaire.

8.3 Governance and Compliance

Could the project activities entail or result in:	Response	Mitigation/Preventive action, or justification for the response
Insufficient institutional capacity within project/initiative implementing agencies or partner organizations, leading to challenges in effective governance and project management?	☐ Yes ☐ Potentially ■ No	Genneia's project management is supported by a comprehensive Code of Conduct, an Integrity Program, and compliance with international standards such as the IFC Performance Standards. Their established framework for internal and external audits, coupled with a strong focus on training and capacity-building, suggests that institutional capacity is a priority. This approach helps mitigate risks related to insufficient institutional capacity by ensuring that all involved parties are equipped to manage and govern the project effectively.
Weak governance structures and mechanisms within the project/initiative, such as unclear roles and responsibilities, inadequate decision-making processes, and limited transparency and accountability?	☐ Yes ☐ Potentially ■ No	As part of its principles, Genneia has implemented a detailed governance framework, including a Code of Conduct, integrity policies, and compliance mechanisms. Regular internal and external audits, as well as established channels for reporting and addressing concerns, contribute to a robust governance structure. These measures help address potential weaknesses in governance by ensuring clear roles, responsibilities, and transparency throughout the project lifecycle.
Inadequate stakeholder engagement and participation in project/initiative decision-making processes, leading to governance gaps and reduced project legitimacy?	☐ Yes ☐ Potentially ■ No	Genneia's commitment to stakeholder engagement is evident through their detailed compliance and communication strategies. By maintaining open lines of communication with stakeholders and implementing mechanisms for feedback and concerns, Genneia works to minimize governance gaps and enhance project legitimacy. Their focus on transparency and ethical practices further supports effective stakeholder participation. Regarding, specifically, stakeholder engagement and participation in the project, Section 9: Stakeholder engagement and consultation, addresses this issue.

Ineffective or inadequate regulatory frameworks governing project activities, resulting in loopholes, inconsistencies, or gaps in environmental protection and governance standards?	☐ Yes ☐ Potentially ■ No	Genneia adheres to both local and international regulatory frameworks, including IFC Performance Standards and the FCPA[V]. Ongoing updates and adherence to high standards of compliance help address potential regulatory gaps and inconsistencies. Regular audits and reviews ensure that the regulatory frameworks remain effective and relevant to environmental protection and governance standards. Also, regulatory frameworks governing project activities is addressed in Section 4: Compliance with Laws, Statutes and Other Regulatory Frameworks.
Delays or challenges in obtaining necessary permits, licenses, and approvals for project activities due to regulatory complexities, bureaucratic inefficiencies, or legal requirements?	☐ Yes ☐ Potentially ■ No	Genneia's experience in navigating regulatory environments and their established compliance mechanisms suggest they are well-equipped to handle potential delays in obtaining permits and approvals. Proactive management of compliance requirements and regular communication with regulatory bodies help mitigate the risk of delays due to regulatory complexities or bureaucratic inefficiencies. Also, part of the environmental impact assessment activities conducted for both solar parks of Instance 01 (PSSU & PSTO III) was to obtain all the necessary permits, licenses, and approvals for project activities to be implemented.
Political interference in project/initiative decision-making processes, such as pressure to prioritize certain projects or interventions based on political agendas rather than scientific or environmental considerations?	☐ Yes ☐ Potentially ■ No	Genneia's Code of Conduct and Integrity Program emphasize transparency and adherence to ethical standards, which helps protect the project from political interference. The rigorous internal and external audits further support the project's commitment to prioritizing scientific and environmental considerations over political agendas.

[V] Information provided in the 2023 Sustainability Report, page 145. Available in: https://www.genneia.com.ar/docs/Genneia_ReporteSustentabilidad2023_.pdf

Non-compliance with relevant laws, regulations, permits, and international agreements governing GHG emissions, biodiversity conservation, environmental protection and land use management, leading to legal challenges and reputational risks?	☐ Yes ☐ Potentially ■ No	Genneia's adherence to local and international laws, including the FCPA and IFC Performance Standards, demonstrates a strong commitment to compliance. Their established compliance programs, regular audits, and training initiatives help ensure that all legal and regulatory requirements are met, reducing the risk of non-compliance and associated legal or reputational challenges. Also, regulatory frameworks governing project activities is addressed in Section 4: Compliance with Laws, Statutes and Other Regulatory Frameworks.
Conflicts of interest among project stakeholders or decision-makers, such as individuals with personal or financial interests that may influence project outcomes or decision-making processes?	☐ Yes ☐ Potentially ■ No	Genneia has implemented policies and procedures for managing conflicts of interest, including clear reporting channels and integrity mechanisms. These measures are designed to address and mitigate potential conflicts among stakeholders or decision-makers, ensuring that project outcomes and decisions remain objective and unbiased. Regarding, specifically, conflicts of interest among project stakeholders or decision-makers in the project, Section 9: Stakeholder engagement and consultation, addresses this issue.
Limited access to justice for communities affected by project activities, such as barriers to legal recourse or remedies for grievances related to land rights, environmental harm, or social impacts?	☐ Yes ☐ Potentially ■ No	Genneia's commitment to ethical practices and transparency includes providing mechanisms for grievances and legal recourse for affected communities. Their focus on maintaining open communication and addressing community concerns helps ensure that affected individuals have access to justice and remedies for any grievances related to land rights, environmental impacts, or social issues. Also question [13] addresses topics related to barriers for communities to legal recourse or remedies for grievances related to project activities

Insufficient monitoring and evaluation mechanisms to assess project performance, impacts, and compliance with governance standards, leading to gaps in accountability and learning?	☐ Yes ☐ Potentially ■ No	Genneia's monitoring and evaluation mechanisms are integral to their governance framework, including regular internal and external audits. Their systematic approach to performance assessment and compliance checks ensures that gaps in accountability and learning are addressed, contributing to ongoing improvement and effective project management. Also, details on the monitoring and evaluation process to assess performance of this grouped project are shown in Section 16: Monitoring plan.
Inadequate capacity building and training for project stakeholders, such as government officials, local communities, and civil society organizations, to effectively participate in project governance and decision-making processes?	☐ Yes ☐ Potentially ■ No	Genneia places significant emphasis on capacity building and training as part of their compliance and governance framework. Their ongoing training programs for staff, stakeholders, and local communities are designed to enhance their ability to participate effectively in project governance and decision-making processes, thereby addressing any potential gaps in capacity and ensuring informed and active participation. Regarding, specifically, capacity building and training for project stakeholders in the project, Section 9: Stakeholder engagement and consultation, addresses this issue.

Table 51: Governance and Compliance safeguards assessment questionnaire.

9 Stakeholder engagement and consultation

The stakeholder engagement and consultation process was carried out following the guidelines established for this process by Genneia's Integrated Management System (SIG), which can be found in the file "Guidelines for Stakeholders Consultation.pdf" included in Annex 08 folder, that will be provided to the CAB. Regarding this grouped project, these guidelines were used to outline the steps taken to conduct an organized stakeholder consultation through a comprehensive assessment that involved the various individuals, groups, and organizations impacted by the project activities. Adhering to the SIG guidelines ensures that the interests of the stakeholders are considered, potential risks are identified, and appropriate mitigation measures are put in place.

The stakeholder consultation process carried out for solar parks in Instance 01 is detailed below. Before starting the construction of each solar park, a Stakeholder Identification Matrix and a context analysis were conducted. These were recorded in spreadsheets named "[Solar Park name] - Análisis de Contexto y Partes Interesadas.xlsx", prepared for each solar park and included in Annex 08 folder. The matrix was developed through the following steps:

1. **Determination of External and Internal Contexts**: This was carried out by considering the external and internal contexts related to each solar park in order to identify the stakeholders.
   In the internal and external contexts, relevant situations that may positively or negatively affect the project activities were analyzed. This analysis was recorded in the "RyO" tab of each solar park's spreadsheet included in Annex 08 folder. The situations considered as possible outcomes that could arise included:

External Context:

- Social situation with nearby communities: possibilities of blockades, access cuts, physical or verbal assaults;
- External financial aspects: bank rates, national and international credits, etc.;
- Surrounding institutions and companies: how the activity/operation of other nearby organizations affects us. For example, if a nearby company experiences an explosion, how it impacts the operational center;
- Equipment - Technology (from competitors);
- Legal aspects or others to which the organization subscribes, new laws under consideration: how the implementation of new regulations could affect the organization;
- Market: state of the electricity/renewable energy market, competing companies, etc.;
- Local, regional, and national political/economic situation;
- Company image and reputation;
- External union situation (of surrounding companies): the union situation of other surrounding organizations could affect the company's operations.
- Suppliers: considering the knowledge they bring and the tasks they perform, for example, O&M contractors;
- Emerging professions in the market that could be useful to us;
- Climatic factors that may hinder/affect the context and operation;
- Others.

Internal Context:

- Relevant Organizational Plans and Objectives (related to safety, health, environment, and business): considering new business lines, the introduction of new electricity generation technologies, high-impact organizational objectives or plans with high costs or implementation difficulties;
- Union situation in the organization;
- New requirements or changes in the service: changes in legal requirements or significant changes that positively/negatively affect the service;
- New knowledge about inputs and/or services and their effect on safety, health, and the environment;
- Organizational values and culture: analyzing whether there are activities that could affect or be affected by the culture of the site where an operational center is located;
- Worker health;
- Internal economic/financial situation of the organization;
- Equipment and technology age;
- Human Resources: competence, ease of finding resources according to job descriptions;
- Organizational Knowledge: do we have available documentation that indicates how to perform tasks?;
- SIG reliability: is the documentation up to date? Are the data generated by the SIG reliable?;
- Workplace safety aspects: could be regulatory, for example, changes in legal requirements such as the ergonomics law;
- Environmental aspects of the organization: for example, changes in regulations that modify legally established limit values;
- Others.

The summary of the identified internal and external context elements for each solar park is found in the "Origen" column within the "RyO" tab of each spreadsheet in Annex 08 folder.

2. **Stakeholder Identification:** Stakeholder identification was carried out by Genneia's Sustainability Management, led by a sociologist.

Stakeholders include all individuals, organizations, communities, suppliers, and others who may have a positive or negative influence on the project activities. These applicable and identified stakeholders were recorded in the "Parte Interesada" column within the "RyO" tab of each solar park's spreadsheet included in Annex 08 folder. Next to the "Parte Interesada" column, the element associated with each stakeholder was defined, and this can be found in the "Tipo de Parte Interesada/Elemento" column in the "RyO" tab. For example, the "Tipo de Parte Interesada/Elemento" column indicates whether it relates to "Public Management and State Agencies," and the "Parte Interesada" column indicates the specific agency. Then needs and expectations of each stakeholder were specified in the "Necesidades" and "Expectativas" columns, respectively. If more than one need was identified, additional rows were added to detail each one separately. If no needs or expectations were detected for a stakeholder, "No Detectado" was written. The spreadsheet also includes the contact details of the stakeholder and the Genneia representative in the columns "Stakeholder Contact" and "Genneia Contact," respectively.

Primary guidelines followed for stakeholder identification were:

- Consider those with whom the company has a legal, operational, or fiscal responsibility.
- Identify individuals, groups, or entities with influence to either hinder or promote the company's and/or the project's activities.
- Consider individuals and companies located in areas where project activities are carried out.
- Include individuals who depend on the organization, such as employees, customers, or suppliers.
- Consider individuals with clear representation of interest groups.

Primary potential stakeholders considered include:

- Security and Emergency Services (firefighters, ambulances, police, gendarmerie, army, health centers for admissions, pre-employment and periodic medical examinations, others);
- Public Administration and State Agencies (ENRE, SRT, OPDS, ADA, ART, Customs, others);
- Community Organizations, Local Institutions, and NGOs (referring to schools, community centers, homes, organizations for causes like Greenpeace, causes managed by a non-profit organization);
- Business Organizations;
- Unions (the labor organization to which GENNEIA personnel belong or that predominates in the area due to the types of industries nearby);

- Suppliers/Contractors;
- Customers (those we provide a service to);
- Neighboring Communities (referring to individuals and organizations near the operational centers);
- Organizations promoting spaces for exchange and learning (forums/congresses/events/rankings);
- Shareholders;
- Competitors (companies sharing a similar or related market niche);
- Employees (people working in the company, excluding permanent contractors, who are categorized under "Suppliers");
- Media Outlets (companies using public information as input to generate business (print, television, radio, digital). The site manager identifies the most recognized provincial and/or local media outlets);
- Opinion Leaders (influential figures in society. People consider their opinions and expressions as authoritative on certain matters);
- Educational Institutions/Research Centers with which the organization has agreements;
- Others.

Up to this point, the stakeholder consultation methodology involved the construction of a stakeholder actor map based on their degree of influence, interest, and impact, derived from a social survey in the territory. This actor map was created by the Project Managers (PM) with the site managers, and for operational sites, by the O&M leaders, with support from the Safety, Hygiene, Environment, and Sustainability departments. The analysis of this actor map allowed for the identification of potential risks and opportunities, a process that is described below:

3. **Identification of Potential Risks and Opportunities:** The identification of risks and opportunities was carried out for:

   - Internal context,
   - External context,
   - Stakeholders.

   Some risks or opportunities may recur when analyzing the different sources. These were recorded only once in the "RyO" tab. When identifying risks and opportunities, the business risks identified in other processes of the company were also considered.

4. **Evaluation of Identified Risks and Opportunities:** After identifying the risks and opportunities, these were recorded in each solar park's spreadsheet according to specific columns in the "RyO" tab ("Categoria de riesgo u oportunidad", "Grupo de riesgo u oportunidad", "Area de riesgo u oportunidad" and "Descripcion del riesgo u oportunidad"). The evaluation was then conducted to identify the most significant Risks or Opportunities and classify them according to the criteria described in "CRITERIOS RIESGO" and "CRITERIOS OPORTUNIDAD" tabs of each solar park's spreadsheet. Following these criteria, the likelihood of occurrence of that Opportunity/Risk and the level of Benefit/Impact of that Opportunity/Risk was defined and specified in the "Probabilidad" and "Impacto" columns within the "Valorización/Priorización del Riesgo u Oportunidad Inicial" column in the "RyO" tab. Once the assessments were made, the "Clasificación" column was used to indicate a score associated with the significance of the Risk or Opportunity, which can be High (red), Medium (yellow), or Low (green). This "significance" score was determined according to the matrices of inherent risk and opportunity levels included in the "TABLAS" tab, which were constructed based on the criteria described in the "CRITERIOS RIESGO" and "CRITERIOS OPORTUNIDAD" columns. In cases of positive impact (benefit) assessment, 1 is low, and 5 is high.

5. **Definition and Implementation of Action Plans:** Within "Medidas de Control/Plan de Acción" column, in the later columns of the "RyO" tab, any existing control measures and monitoring of these measures regarding a risk and/or opportunity were included to minimize/mitigate its impact, with the subsequent adoption of an action plan. If no existing control measures and/or monitoring of such measures (or both) were present, "Sin medidas de control/Sin monitoreo" was recorded in the "Medidas de control existentes" column, and an associated action plan was nonetheless defined. The various outcomes were managed according to the matrices of inherent risk and opportunity that were constructed and mentioned in the previous point, as shown below:

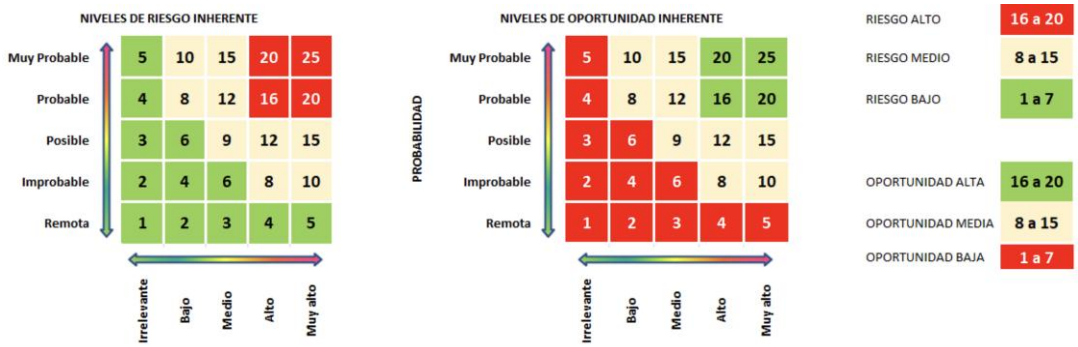

Table 52: Shows the inherent risk and opportunity matrices.

The rules for assessing the possible outcomes were the following:

- For high-priority outcomes (red), it is mandatory to describe existing control measures and develop action plans to eliminate or mitigate the risks/enhance the opportunities.
- For medium-priority outcomes (yellow), existing control measures are described.
- For low-priority outcomes (green), no actions are required.

The action plans were recorded in the "RyO" tab under the "Medidas de Control/Plan de Acción" column, clearly indicating:

- What action was implemented,
- What resources were needed (people, equipment, materials, others),
- Who were responsible for executing that action,
- What the estimated deadline was for verifying the implementation that action,
- Implementation status.

A situation may arise where the Site/Park Manager decides to accept a risk/opportunity, meaning no actions are implemented, and only its evolution is monitored. In cases where this occurred, it was noted in the "Plan de acción" column as follows: "Se asume el Riesgo/la oportunidad."

Any identified risks, whose action plans needed to be driven by other sectors, was communicated to the relevant parties responsible for follow-up. To determine the action plans established by each operational center, the Site/Park Manager, if necessary, convened the owner of the involved process to jointly reaffirm these plans. The areas involved included:

- Sustainability
- Human Resources
- Corporate Affairs
- SHyMA
- Quality/SIG Coordination
- Operations
- Procurement
- Others.

6. **Communication to Stakeholders:** Once the internal analysis was completed, the communication of each project (i.e., the construction of each solar park) was carried out. To this end, public hearings were held to inform stakeholders about the details of the project and address their concerns.

(a) Scope of public hearings

The primary objective of these consultations was to communicate each project (i.e., the construction of each solar park) and secure the Environmental Impact Statement (EIS) from the Government of San Juan. Public hearings were held to provide an institutional forum where any interested party could learn about the proposed project and, if they felt potentially affected, express their knowledge, experience, and perspectives on the decisions to be made.

(b) Number of stakeholders consulted

Although the public hearings were open to anyone interested, the number of stakeholders who actually participated in each hearing differed by solar park. For PSSU, a total of 20 participants attended, including representatives from the State Secretariat of Environment and Sustainable Development (Director of Environmental Management, a technical representative, and an administrative representative), the Municipality of Ullum, and the Office of the Ombudsman (see pages 31–35 of "Public Hearings – PSSU.pdf" in Annex 08 folder). For PSTO III, a total of 22 participants attended, including representatives from the State Secretariat of Environment and Sustainable Development (Director of Environmental Evaluation and Impact, a technical representative, and an administrative representative), the Secretary of Government of the Municipality of Calingasta, as well as technical-legal staff from Genneia (see pages 2–5 of "Public Hearings – PSTO III.pdf" in Annex 08 folder).

(c) Means used to invite interested parties to participate

Official communications were issued by EPSE for PSSU[W] and by the Department of Calingasta for PSTO III[X], informing the public of the scheduled hearings. This approach ensured broad accessibility and open participation, allowing any interested stakeholder to attend.

(d) Information made available to stakeholders

[W] https://epsesanjuan.com.ar/ingles/web/novedad/audiencia-publica-en-ullum/15
[X] https://calingasta.gob.ar/audiencia-publica-en-calingasta/4/

During each public hearing, stakeholders received detailed information about the respective solar park, its potential environmental and social impacts, and the measures proposed to address these impacts. This information was provided with the aim of obtaining the EIS, and stakeholders were encouraged to pose questions and share feedback.

(e) Meetings, workshops, and other processes developed in the framework of the stakeholder consultation

Public hearings were the primary mechanism for stakeholder engagement. Photographic evidence of these hearings, demonstrating stakeholder presence and active participation, can be found inside the folder "Public Hearings Pictures" included in Annex 08 folder. Through these hearings, the project team gathered feedback and addressed concerns, thereby facilitating an inclusive consultation process.

In parallel with identifying action plans to mitigate potential risks and/or capitalize on emerging opportunities, various communication channels were made available for stakeholders to provide feedback. These included web forms on Genneia's website, email accounts for stakeholder contact, the option (highlighted in red) to communicate via postal mail, among others. The "Canal de recepción" column in the spreadsheet "Stakeholders complaints, inquiries, and claims.xlsx" in Annex 08 folder includes a detail of the communication channels used for the reception of comments.

Responsibilities were also established to ensure responses to those comments. More details on this can be found in sections 9.1 and 9.2. This internal follow-up process ensures continuous communication with relevant stakeholders, fostering transparency and collaboration throughout the project lifecycle, and its monitoring is detailed below.

After beginning the construction of the parks, it was necessary to establish criteria for monitoring the processes described in the previous points. This monitoring process is described below:

7. **Monitoring of Action Plans:** Based on the established deadlines for actions, the corresponding monitoring will be carried out to ensure they are completed on time and as required. The monitoring date and status will also be recorded in the "Monitoreo" column within the solar park's spreadsheets, that will be created after the first monitoring is carried out. If there is a need to adjust an action plan, it must be documented in the "Monitoreo" column. Additionally, the internal audit tool will be used to monitor action plans related to risks and opportunities.

8. **Evaluation of Action Plan Outcomes:** The evaluation of the outcomes of the action plans will be presented in a Management Review Report and, if necessary, may be discussed in the SIG Committee for decision-making by Senior Management.

9. **Update of the Internal and External Context Analysis and Stakeholders:** The evaluation of risks and opportunities, along with their associated action plans resulting from the analysis of the internal and external context, will be reviewed at least ONCE (1) a year. It should be noted that extraordinary reviews can be carried out when changes in the internal and external context and stakeholders significantly impact the organization. A reference regarding the change that is triggering the new review of the corresponding record can be noted in the "Control de Cambios" tab within the solar park's spreadsheets.

   The ongoing monitoring and engagement of stakeholders differ for the solar parks. For PSTO III, stakeholder follow-up is carried out by a consulting firm, Atlas Social, which is responsible for visiting the neighbors and the involved parties that are intrinsically linked to the project. Atlas Social also advises on social action plans and conflict resolution strategies, should any issues or concerns arise among stakeholder groups.

   In contrast, for PSSU, the stakeholder follow-up is carried out internally by Genneia's team members, as previously outlined in the roles and responsibilities. This internal process ensures continuous communication with relevant stakeholders, fostering transparency and collaboration throughout the project lifecycle.

As stated previously, the stakeholder consultation was carried out for the solar parks of Instance 01 (PSSU & PSTO III), precisely following the previously mentioned stakeholder consultation process up to point 6. Points 7 to 9 will be carried out in due course.

9.1 Summary of comments received

A total of eleven (11) comments were received following the communication of the project to stakeholders and prior to the start of operations for each solar park in Instance 01. The table below provides a summary of the comments received up to the start date (commercial authorization) of each solar park in Instance 01.

#	Solar Park	Reception Date	Stakeholder	Comment
1	PSSU	25/05/2021	Ester Quiroga - EEE Multiple de Ullum	Requests a visit to an interested school and collaboration to tell students about the project
2	PSSU	25/04/2022	Alejandro Maturano - Instituto de Energía Eléctrica (IEE)	Requests sponsorship
3	PSSU	21/06/2022	Elias Buigues - UNSJ	Requests visit to the Solar Park
4	PSSU	15/07/2022	Carlos Tejo - N/A	Requests visit to the Solar Park
5	PSSU	27/10/2022	Videla María Belén - Escuela Carlos María Alvear	Requests visit to the Solar Park with students of the school
6	PSSU	17/03/2023	Luis Altamirano - JETBUS Lugares & Turismos	Requests visit to the Solar Park with students of the school
7	PSTO III	25/04/2023	Gustavo Recabarren/Fabiana Castillo – N/A	Request for warm jackets for students of Escuela Técnica Gral Manuel Savio
8	PSTO III	28/06/2023	Juan Manuel Cuevas - Oficina de Empleos del Municipio de Iglesias	Meeting request to know about the Project and the Solar Park
9	PSTO III	05/09/2023	Fabio Ibaceta - Cooperativa La Esperanza	Request for donation of pallets from the PSTO III project
10	PSTO III	11/09/2023	Roberto Zárate - ET Savio	Donation request of residues from Solar Park construction
11	PSTO III	17/09/2023	Nadia Perez - Escuela de Capacitación Laboral 22	Donation request of residues from Solar Park construction

Table 53: Summary of all comments received following the communication regarding the construction of each solar park to relevant stakeholders, up until the project start date.

A more detailed document for each one of the stakeholders comments received will be available to the CAB in the "Stakeholders complaints, inquiries, and claims.xlsx" spreadsheet included in Annex 08 folder.

9.2 Consideration of comments received

The table below provides a clear overview of the considerations and actions taken for each comment.

#	Stakeholder	Response Date	Consideration and response to comment	Status
1	Ester Quiroga - EEE Multiple de Ullum	11/08/2021	The school was visited. It was informed that visits are not being conducted at the moment. Regarding the request, the establishment does not have a secure place for the requested machinery. It will be assessed if the company has security cameras in the future, but for now, the donation is dismissed.	Solved
2	Alejandro Maturano - Instituto de Energía Eléctrica (IEE)	12/05/2022	Sponsorship and participation in the Energy Transition Workshop were carried out.	Solved
3	Elias Buigues - UNSJ	01/07/2022	It was informed that visits to the sites are not conducted due to security reasons.	Solved
4	Carlos Tejo - N/A	18/07/2022	It was informed when visits will resume.	Solved
5	Videla María Belén - Escuela Carlos María Alvear	27/10/2022	It was informed when visits will resume.	Solved
6	Luis Altamirano - JETBUS Lugares & Turismos	04/03/2023	A response was sent via email requesting that educational institutions be the ones to request visits.	Solved
7	Gustavo Recabarren/Fabiana Castillo – N/A	31/05/2023	On May 31, a donation of 17 jackets, 17 hats, gloves, and 17 thermal shirts was made.	Solved
8	Juan Manuel Cuevas - Oficina de Empleos del Municipio de Iglesias	04/07/2023	The employment officer requested a meeting to discuss the project and employability. Their concerns were heard, and it was agreed to send their contact to HR so the company could contact them if profiles were needed for the project. The meeting took place on July 4, 2023.	Solved
9	Fabio Ibaceta - Cooperativa La Esperanza	05/09/2023	It was informed that pallets would be available by mid-October. The channel remains open to receive other needs.	Solved
10	Roberto Zárate - ET Savio	03/11/2023	It was communicated to the institution, after a study conducted in the community, that we have waste materials available to donate for workshop activities. They sent a note listing other items they need, and we are analyzing the proposal. On November 3, a Circular Economy Workshop will be held. During June, the assembly of urban furniture will take place, and we are assessing materials to contribute.	Solved

11	Nadia Perez - Escuela de Capacitación Laboral 22	17/10/2023	Request for appliances and kitchen utensils. The request is under evaluation. On October 17, we contacted them to understand their needs, but we have not received a response yet.	Solved

Table 54: Summary of considerations and actions taken in response to the comments received from stakeholders.

All comments received were solved in a timely and appropriate manner, as indicated in the "Status" column within the "Tratamiento y Cierre" column in the "Stakeholders complaints, inquiries, and claims.xlsx" spreadsheet included in Annex 08 folder, that will be available to the CAB.

10 Sustainable Development Goals (SDGs)

The GHG project contributes to several SDGs through the development of its activities and additionality, such as:

Sustainable Development Goal 7

The project aligns with and contributes to the targets set by SDG 7, which aims to ensure access to affordable, reliable, sustainable, and modern energy for all. Specifically, the project supports Global Indicator 7.2.1, which tracks the renewable energy share in the total final energy consumption. By installing and operating solar parks that generate photovoltaic energy, the project directly increases the proportion of renewable energy within the national grid (SADI). This clean energy production displaces electricity that would otherwise be generated from fossil fuels, thereby reducing the country's carbon footprint and advancing the transition to a more sustainable energy system. The impact of this contribution is both significant and permanent, with its effectiveness measurable in terms of megawatt-hours (MWh) of solar energy produced and supplied to the grid. This ongoing renewable energy generation will be continuously monitored and verified through meter readings and CAMMESA reports about SADI matrix composition.

Sustainable Development Goal 8

The project contributes significantly to achieving SDG 8 by creating sustainable economic growth and promoting inclusive employment through its activities in the renewable energy sector. By aligning with Global Indicator 8.2.1, the project fosters the annual growth rate of real GDP per employed person. This is accomplished through the creation of jobs in the construction, operation, and maintenance of solar parks, which not only generates employment but also enhances productivity and value within the energy industry. This leads to a permanent increase in GDP per employed person, as documented through employment records over the verification period. Moreover, the project aligns with Global Indicator 8.10.2 by advancing financial inclusion among its workforce. By providing stable employment opportunities in the solar energy sector, the project enables workers to open bank accounts and access financial services, thereby contributing to their economic empowerment. The proportion of adults with access to financial institutions or mobile-money services is expected to rise, as verified by employment records and the number of workers with bank accounts that were created after their hiring to work at the solar parks.

Sustainable Development Goal 12

The solar energy project significantly contributes to achieving SDG 12 by addressing key global indicator 12.5.1. In alignment with this global indicator, the project implements robust waste management and recycling initiatives, ensuring that materials used during construction, operation, and abandonment are recycled wherever possible and waste spills are managed appropriately. This increases the national recycling rate and supports a circular economy, with progress monitored through recycling logs detailing the tons of materials recycled during the abandonment phase.

Sustainable Development Goal 13

This renewable energy project, involving solar parks that generate solar photovoltaic energy and inject it into the national grid (SADI), significantly contributes to the achievement of SDG 13 by aligning with global indicators 13.2.1, 13.3.1 and 13.3.2. By generating clean energy, the project directly contributes to Law 27,191 and the National Plan for Climate Change Adaptation and Mitigation (PNAyMCC), as measured by indicator 13.2.1. Progress will be monitored by providing data on the relative contribution to the renewable energy share in the SADI. Additionally, the project promotes climate change education and awareness through training programs and workshops, which are crucial for integrating mitigation and adaptation strategies into national curricula, aligning with global indicator 13.3.1. These programs, detailed in the file "Acciones con la Comunidad.pdf" included in Annex 09 folder, will be monitored by recording educational initiatives, participant feedback, and knowledge gained. Furthermore, the project enhances local and institutional capacity by offering training in solar energy system operations, thereby bolstering resilience against climate change, corresponding to global indicator 13.3.2. Monitoring will include training records and participant records.

Sustainable Development Goal 15

This renewable energy project contributes to achieving SDG 15 by addressing global indicator 15.3.1 through targeted environmental management practices. The project includes land restoration and rehabilitation activities during the abandonment phase to mitigate land degradation caused by construction and maintenance. These efforts ensure that disturbed areas are restored and that erosion control measures are applied, thereby reducing the proportion of degraded land and promoting sustainable land management. The number of hectares of land restored or rehabilitated will be monitored during the abandonment phase to verify progress towards this goal.

It is worth noting that details on how these SDGs will be met by the project activities is available in the BCR_SDG-Tool spreadsheet, that will be provided to the CAB and BCR technical committee.

11 REDD+ Safeguards (for REDD+ projects)

Not applicable.

12 Special categories, related to co-benefits (optional)

No special categories were applied.

13 Grouped projects (if applicable)

As described in the BCR STANDARD, section 19.1.2 "Activities in the energy, transportation, and waste sectors":

GHG project holder that involve activities in those sectors may develop grouped projects. To this end, they shall meet the following requirements:

(a) Identify during the validation process, the geographical area(s) within which (initial and additional) instances of the project are developed and define the criteria for the addition of new cases;
(b) Comply with the guidelines of the BCR Standard, in their most recent version;
(c) Comply with all the provisions of the BIOCARBON methodological documents they apply, in their latest release;
(d) Include emission reductions only for validated project activities;
(e) Implement the GHG emission reduction activities described in the validated project document;
(f) Demonstrate that the new instances meet the conditions of applicability described in the methodology applied;
(g) Demonstrate that geographic areas (to be included in the project boundaries) in which there are no initial instances are subject to the same baseline scenario conditions and additionality as the areas in which are the initial instances;
(h) Provide evidence of the start date of activities in the new instances, demonstrating that this date is later than the start date of the GHG emission reduction activities in the cases included in the validation (initial instances);

(i) The baseline scenario shall be determined for each instance, in accordance with the applicable methodology;

(j) Additionality shall be assessed at the instance level as required by the applicable methodology. Within the eligibility criteria set at the time of registration for the inclusion of new project activity instances, criteria regarding the additionality requirements for inclusion shall be defined;

(k) Confirm that each instance complies with all methodology applied provisions, including the capacity limits set out in the methodologies applicable to the project type.

Regarding requirement (a), the geographical area encompassing initial and additional instances of the project is the Cuyo region, as specified in section 2.4 of this project document. Any new case or instance added to this grouped project in the future will be within the geographical limits of the Cuyo region, meaning that future instances may be implemented in the provinces of San Juan or Mendoza.

Regarding requirement (b), all instances (actual and futures) comply with the guidelines of the BCR Standard, in their most recent version.

Regarding requirement (c), all instances (actual and futures) comply with all the provisions of the BIOCARBON methodological documents they apply, in their latest release.

Regarding requirements (d) and (e), all instances (actual and futures) include emission reductions only for validated project activities, and implement the GHG emission reduction activities described in this project document.

Regarding requirement (f), new instances will meet the conditions of applicability described in the BCR Standard and the ACM0002.

Regarding requirement (g), as it was mentioned in section 3.3, the baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the CM and this applies equally to all the Cuyo region. All additionality conditions mentioned in section 3.4 apply equally to all of the Cuyo region, as no geographical limitations were identified that could influence the additionality of the BCR Project.

Regarding requirement (h), new instances will have starting dates later than the starting dates of the two solar parks included in the initial instance. This means that the starting dates of new instances must be after 30th December 2023.

Regarding requirement (i), the determination of the baseline scenario and the demonstration of additionally will be determined for each instance of the project based on baseline conditions established in ACM0002 methodology (see sections 3.3 and 3.4).

Regarding requirement (j), additionality will be assessed at the instance level as required by the applicable methodology. Within the eligibility criteria established at the time of registration for including new project activity instances, the criteria regarding the additionality requirements for inclusion will be defined.

Regarding requirement (k), all instances (initial and future) will comply with all applied methodology provisions, and there are no capacity limits exceeded by this type of project in the framework of ACM0002 methodology, as it is a large project.

14 Other GHG program

The project is not registered in other GHG programs.

15 Double counting avoidance

The "Avoiding Double Counting" Tool of the BCR standard (from now on, ADC Tool) defines a set of requirements and principles to avoid the double counting of emission reductions or removals.

In this regard, project holder ensures that none of the four scenarios/conditions described in the ADC Tool are met in this grouped project, aligned with the scope of the ADC Tool that prohibits the accounting, issuance and retirement of GHG mitigation results that meet any of those four scenarios/conditions described by the ADC Tool.

Regarding the provisions in place to avoid the double issuance of VCC, it is worth noting that this grouped project has not been included or registered in any other GHG program and that the emission reductions accounted for (in the form of avoided tons of CO_2e) will be issued for the first and only time as Verified Carbon Credits (VCC) under the BCR Standard. Also, the "Framework Contract signed between the Biocarbon's Registry and Project Holders" addresses this topic by prohibiting, in its Seventh clause, Double Accounting and the double issuance of VCC.

16 Monitoring plan

16.1 Description of the monitoring plan

The monitoring plan provides a comprehensive framework that ensures accurate and consistent data collection and management throughout the project's lifecycle. It outlines the monitoring structure, including the roles and responsibilities of key personnel, and specifies the critical parameters to be monitored, such as greenhouse gas (GHG) emissions, energy generation, and resource usage. Additionally, the plan details the monitoring practices that will be employed, ensuring alignment with industry standards and regulatory requirements. It also covers the procedures for quality assurance and quality control (QA/QC) to ensure the integrity and reliability of the collected data. This includes calibration of monitoring equipment, periodic audits, and validation processes to detect and correct any anomalies or deviations. Furthermore, the plan specifies protocols for data storage, archiving, and security, ensuring that all information is preserved in a manner that facilitates future reporting, verification, and potential audits. All these activities are carried out in strict accordance with the approved methodology ACM0002 v22.0, which governs large-scale grid-connected renewable energy projects, and the BCR Tool for Monitoring, Reporting, and Verification (MRV), ensuring full compliance with international best practices and standards.

Project boundary monitoring

As mentioned in section 3.2.1, the defined spatial extent of the project boundary encompasses both the physical site of each solar plant (i.e., geographical limits of each solar park) and all the power plants connected to the SADI (Argentine Interconnection System), as shown in Figure 16.

These boundaries are maintained by the Argentine Secretariat of Energy, which is responsible for authorizing which entities are connected to the SADI (Argentine Interconnection System) and which are not. CAMMESA (Compañía Administradora del Mercado Mayorista Eléctrico S.A.) manages the distribution of electrical supply within the SADI and reports the generation data on a monthly basis, which is available online. The authorization from the Argentine Secretariat of Energy and CAMMESA's administration ensure that only approved and relevant power plants are included within the project boundary, thereby aligning with regulatory requirements and maintaining the integrity of the project scope.

More information about how each core member of the monitoring team contributes to the project boundary monitoring is available in section 16.2.6.

Monitoring of the execution and quantification of project activities

Personnel who carry out monitoring tasks are familiar with the basic monitoring requirements and structures. If new personnel are incorporated during the monitoring period, it must participate in a basic training in order to get familiarized with the monitoring procedures. Since the main monitoring tasks, i.e. the measurement of the energy production, the calibration of energy meters, and the reporting of the energy generation, are carried out independently from BCR as part of the daily operation, no specific training is required.

The Monitoring Coordinators will assure correct application of the monitoring procedures. They will also carry out corrective actions if any inconsistency is identified and train the Plant Manager and the Technical team, if necessary.

The continuous monitoring of electricity generation ensures that the net electricity delivered to the grid is completely monitored along the whole quantification period, given the fact that the total generation measured will affect the amount of emission reductions obtained. Due to the project participant's choice of an ex-ante emission factor, the most important variable to monitor is the project's electricity generation. It will be measured according to the national standards and regulations for the wholesale market participants (rules from CAMMESA).

To ensure the precise verification of energy generation in each solar park, which is crucial for accurately attributing emissions reductions from the project activities, metering panels specifically designed to measure the total power exported to the grid are installed. This measurement is conducted through transformers located in the metering cell within the switchgear building of each solar park, which are connected to the corresponding transformer stations responsible of injecting the generated energy to the SADI. To enhance accuracy, both primary meter/s and redundant meter/s are installed. These meters incorporate a certified tariff discriminator with a built-in recorder and communication capabilities, and generation data will be ready to download both remotely and/or locally by CAMMESA and the project developer. The meters are of a high precision class, specifically 0.2s/0.5r, ensuring that the measurements are highly accurate.

Furthermore, these meters are equipped with communication modems and protection equipment, safeguarding the metering infrastructure. This rigorous measurement approach supports the correct calculation and verification of emission reductions, providing reliable data for monitoring and reporting purposes.

More information about how each core member of the monitoring team contributes to the monitoring of the execution and quantification of project activities is available in section 16.2.6.

Quality control and quality assurance procedures

Regarding energy generation, as mentioned in the previous section (16.2.2), each solar park is equipped with primary electricity meter/s and redundant backup meter/s—to ensure accurate measurement in case the primary meter/s fails. In the event of any meter failure, the project developer will follow the procedures outlined in the "Sistema de Medición Comercial" (SMEC) and CAMMESA regulations. Additionally, if any other emergency prevents accurate measurement of power generation or if data is lost due to a monitoring failure, no emission reductions will be claimed for that period until the meters are functioning correctly again and reliable data is available.

More information about how each core member of the monitoring team contributes to the quality control and quality assurance procedures is available in section 16.2.6.

Verification of field data and review of information processing

The process of verifying field data and processing information involves several key steps to ensure data integrity and accuracy. This includes the verification of reports related to operational events, maintenance activities, and compliance with procedural requirements:

Real-time monitoring and technical responses to equipment issues are overseen to maintain accurate records. Regular inspections and maintenance activities are documented, ensuring that all field data is reliable and supports the overall monitoring and reporting processes. Additionally, operational and maintenance reports, KPIs, and other relevant documents are generated and managed to facilitate informed decision-making.

The process also includes the management of administrative tasks, such as stock control and logistics, to ensure the smooth operation of the project.

Finally, safety and environmental compliance are maintained through regular inspections and the updating of risk and environmental matrices, ensuring that all data aligns with regulatory standards.

More information about how each core member of the monitoring team contributes to the verification of field data and review of information processing is available in section 16.2.6.

Data recording and archiving system

Regarding energy generation, the information will be acquired on programmable intervals ranging from a minimum of one minute to a maximum of an hour. The information is backed up by the operational team frequently. The data is included in an excel spreadsheet for emission reductions calculations on a monthly basis.

Regarding the rest of parameters monitored, all data collected as part of the monitoring process are archived electronically and kept at least for two years after the end of the last quantification period.

More information about how each core member of the monitoring team contributes to the data recording and archiving system is available in section 16.2.6.

Organizational structure

The organizational structure outlines the roles and responsibilities of each team member responsible within the monitoring plan for the proper implementation and execution of the Monitoring, Reporting, and Verification (MRV) of project activities. Each role and its corresponding responsibilities are detailed below (a Job Description Form for each role is available in Annex 10 folder):

Role	Description
Plant Manager	To begin with, regarding the project boundary monitoring, the Plant Manager is responsible for establishing generation and availability projections over short, medium, and long-term periods, ensuring that the solar parks operate correctly. This responsibility is crucial for maintaining expected performance levels and ensuring that the electrical supply is available to be injected into the SADI, managed by CAMMESA, which oversees the distribution of electrical supply within the SADI. In terms of monitoring the execution of project activities, the Plant Manager oversees the daily and monthly post-operational control processes using SAP, ensuring that all operational activities are executed as planned. Additionally, this role monitors the dispatch and performance of all generating units, ensuring they are aligned with the project's goals. The quantification of project emission reductions or removals is another critical area where the Plant Manager plays an important role. This role involves standardizing the flow of operational information between the Centrales and Sede to ensure consistent and accurate data communication, which is vital for the precise quantification of GHG emission reductions—a task that will be handled by the Monitoring Coordinators. To maintain high standards, the Plant Manager also develops and oversees the technical and administrative procedures related to both operational and commercial activities, ensuring that quality control and quality assurance procedures are rigorously followed. In the verification of field data, this role is responsible for ensuring that perturbation reports related to SADI, along with other necessary data submitted to CAMMESA, meet all procedural requirements, thereby verifying the integrity of the field data. Additionally, the Plant Manager continuously proposes and implements improvements in the processes for recording and processing operational data, such as standardizing the flow of operational information between the Power plants and Head Office, thus enhancing the accuracy of information processing. Regarding the data recording and archiving system, the Plant Manager oversees the operation and administration of each park Real Time Operation System (SOTR) and Commercial Measuring System (SMEC), ensuring that all relevant operational data is correctly recorded and archived.
Control Center Operations Coordinator	Plays a pivotal role in the monitoring plan by coordinating the real-time operation of the generation assets, ensuring that the project boundaries are meticulously respected throughout the energy production process. This position involves supervising the operational commands issued by CAMMESA and carriers, as well as overseeing the technical maintenance activities within the project sites to ensure alignment with the defined project boundaries. In terms of monitoring the execution of project activities, the coordinator is responsible for managing the tasks of the Control Center (CECO), supervising the execution of operational instructions, and facilitating real-time communication of any detected failure events.

	The coordinator also contributes significantly to allow the correct quantification of emission reductions or removals. By controlling key systems related to the project activities, such as SCADAS, SMEC, and SOTR, and ensuring accurate communication of operational events to stakeholders like CAMMESA, carriers, and GENNEIA, this role ensures that the quantification of energy generation, and thereby emission reductions, is precise and reliable. Regarding quality control and assurance, the coordinator oversees the proper functioning of systems associated with CECO activities, ensuring that any discrepancies are promptly addressed. Moreover, the development and updating of procedures by this role support continuous quality control and assurance throughout the monitoring process. The coordinator also ensures that field data related to operational events and maintenance activities are accurately reported and verified by overseeing real-time monitoring and coordinating the technical response to any failures that arise. In reviewing information processing, the coordinator manages the operational declarations required by CAMMESA and provides crucial information on maintenance activities. This oversight is instrumental in ensuring that operational data is processed and integrated correctly into the project's reporting systems. Lastly, the coordinator is responsible for ensuring that all operational data, including KPIs and reports related to CECO activities, are accurately recorded and archived. This meticulous approach supports long-term data integrity and ensures that information is accessible for future reference. The role involves supervising a team of 6 direct reports, ensuring 24/7 coverage by the Guardia CECO, which is essential for the continuous monitoring and management of the project's operations.
Operation & Maintenance Technician	Is a key player in ensuring the optimal functioning and availability of the solar park's operational infrastructure. Reporting directly to the O&M Leader, this role is dedicated to the hands-on operation and maintenance of the park's equipment, aiming to maintain the highest levels of availability and generation capacity. In terms of project boundary monitoring, is responsible for operating and maintaining the solar park's equipment and control systems. This includes executing electrical equipment maneuvers, managing real-time communications with control and dispatch organs, and reporting any operational or maintenance issues to the Plant Manager. The role is crucial in ensuring that all operational activities remain within the defined project boundaries and that the infrastructure is operating at peak efficiency. For monitoring the execution of project activities, this role involves both preventive and corrective maintenance tasks. The Technician is responsible for carrying out maintenance according to defined preventive and predictive plans, as well as responding to and addressing any corrective maintenance needs.

	The Technician also contributes to the quantification of project emission reductions and removals by analyzing the behavior of the park's components in relation to the availability of solar resources. Through the management of maintenance reports in SAP and the analysis of alarms from SCADA systems, inverters, and other plant components, the Technician plays a critical role in ensuring accurate quantification and reporting of the solar park's performance. Quality control and quality assurance are embedded in the Technician's daily responsibilities. The role involves participating in the creation and updating of operation and maintenance instructions, ensuring that all procedures are followed correctly. Additionally, the Technician is tasked with maintaining up-to-date maintenance records and ensuring compliance with health, safety, and environmental standards, thus contributing to the overall quality assurance of the project. Also, the Technician inspects the solar plant's equipment daily, detecting any malfunctions or needs for repair, adjustment, or lubrication. By maintaining detailed records and responding to operational emergencies, the Technician ensures that all field data is accurate, verified and reliable, supporting the overall monitoring and reporting processes. In terms of information processing, the Technician is responsible for generating and managing operational and maintenance reports. These reports provide valuable insights into the operational status of the solar park and contribute to the broader review of information processing within the project. Finally, the Technician plays a significant role in the data recording and archiving system. By maintaining updated maintenance records and managing work orders in SAP, the Technician ensures that all data is accurately recorded and easily accessible for future reference. The role also involves complying with all regulatory requirements related to health, safety, and environmental management, ensuring that all activities adhere to the highest standards of safety and environmental stewardship.
Operation & Mantenance Leader	Plays a pivotal role in ensuring the successful operation and maintenance of the solar park. With three direct reports, this position is responsible for coordinating all activities related to the operation and maintenance of the park, ensuring that they align with the company's policies, contractual obligations, and applicable laws. In the context of project boundary monitoring, the O&M Leader coordinates and secures the necessary resources to execute all operation and maintenance tasks effectively, in compliance with energy sales contracts, industry best practices, and the legal framework governing the Argentine electrical market. The O&M Leader role also involves programming and overseeing preventive, predictive, and corrective maintenance tasks for all central equipment according to plans established in SAP. By ensuring that maintenance activities are carried out efficiently and in accordance with established procedures, the O&M Leader directly contributes to the reliability and efficiency of the solar park's operations, which is crucial for the correct monitoring the execution of project activities.

	For monitoring the quantification of project emission reductions and removals, the O&M Leader supervises the analysis of SCADA system alarms, inverters, and other plant components. By doing so, the role ensures that any deviations or issues are promptly addressed, thus maintaining the accuracy and integrity of the emission reduction data. Additionally, the O&M Leader is responsible for managing maintenance reports in SAP, which are critical for documenting the plant's operational performance and its impact on emissions. Quality control and quality assurance are integral parts of the O&M Leader's responsibilities. The role involves the preparation and enforcement of procedures and instructions for executing O&M tasks, following the guidelines and standards of the Integrated Management System (SIG). The O&M Leader also plays a key role in training park personnel to ensure that SIG methodologies and documentation are correctly applied, thereby maintaining high standards of quality and safety across all operations. The O&M Leader is actively involved in the verification of field data, ensuring that all maintenance records are up to date and accurately reflect the current state of the plant's equipment. This role also requires procuring, managing, and tracking all supplies, tools, and spare parts necessary for the park's O&M, ensuring that resources are always available when needed. Regarding information processing, the O&M Leader is tasked with preparing operational and maintenance reports, as well as KPIs, budgets, and other reports as required. These reports are essential for reviewing the efficiency and effectiveness of the park's operations and for making informed decisions about future activities. By ensuring that all maintenance activities are properly documented in SAP and that records are maintained in an organized manner, the O&M Leader contributes to the transparency and traceability of all operational activities, playing a significant role in the data recording and archiving system. Moreover, the role involves participating in the treatment of non-conformities, analyzing their causes, and implementing corrective or preventive actions to address any deviations.
Solar Assets Administrator	Plays an essential role in coordinating, controlling, and monitoring all administrative tasks within the Business Unit. This position, while not supervising other employees directly or indirectly, provides critical support to the operational management by collaborating closely with the Park Leadership in managing and coordinating various operational activities. In the context of project boundary monitoring, contributes by assisting in the development and review of technical specifications and contracts for service procurement, ensuring that all administrative processes adhere to the defined project boundaries. This role is also involved in the cataloging of new materials and managing stock control at the park, which are crucial for maintaining the integrity of project operations within the established boundaries.

	Regarding the monitoring of project activities, supports the elaboration and monitoring of maintenance plans, ensuring that all planned activities are carried out according to schedule. This role also collaborates in the creation and follow-up of the annual park schedule, which includes coordinating personnel travel, vacations, and other key operational timelines, thereby ensuring that project activities are efficiently organized and executed. For the monitoring of the quantification of project emission reductions and removals, this position aids in managing the administrative aspects of operational processes, such as SAP management (including SOLPE, HES, HEM, SAP PM, and stock control). By doing so, the Solar Assets Administrator helps ensure that all relevant data is accurately recorded and managed, which is vital for the precise calculation of emissions data. Quality control and quality assurance are supported by this role through the creation and review of administrative and technical procedures, instructions, reports, and flowcharts related to asset management. The Solar Assets Administrator is also responsible for tracking the OPEX, CAPEX, and other budgetary elements, ensuring that any deviations are identified and justified, thus contributing to the overall quality and reliability of project operations. It also plays a key role in the verification of field data by managing documentation related to stock control, procurement, and supplier management. Additionally, the role is responsible for managing HR-related matters for the park personnel, such as handling overtime, vacations, special permits, and other benefits, ensuring that all administrative aspects are in order and accurately recorded. In terms of information processing, this role is tasked with supporting the coordination of the office's activity schedule, including meetings, training sessions, and interviews, and managing the office's basic supplies, ensuring smooth day-to-day operations. The role also oversees the logistics related to personnel and visitors, including vehicle distribution, travel arrangements, and accommodation, ensuring that all logistical needs are met efficiently. The Solar Assets Administrator is integral to the data recording and archiving system, particularly in the management of SAP processes and administrative documentation for Safety, Hygiene, and Environmental Management (SH&MA). This position also supports the management of contracts with technologists, ensuring compliance with obligations and handling administrative tasks related to social issues, such as third-party consultations and external visits, including the management of the Complaints, Inquiries, and Claims Mechanism.
Health, Safety, and Environment Technician	This is a critical role within the solar park operation. Although this role does not involve direct or indirect supervision of others, it carries significant responsibilities in ensuring the safety, hygiene, and environmental standards within the park are adhered to, contributing to the overall safety and environmental integrity of the project.

	The Health, Safety, and Environment (SHyMA) Technician ensures that all activities within the project boundaries comply with the Integrated Management System (SIG) requirements related to safety, hygiene, and the environment. This includes creating and maintaining records associated with the SIG, identifying and evaluating environmental aspects, and risks related to occupational safety and health (SySO) across all site activities. The SHyMA Technician plays a pivotal role in monitoring project activities by providing support, advice, and training to the park's leadership and team on all SHyMA-related matters. This role is responsible for recommending the cessation of activities if minimum SHyMA conditions are not met, thus ensuring that all activities are conducted safely and environmentally responsibly. Furthermore, the SHyMA Technician is actively involved in responding to emergencies, coordinating actions according to the established emergency roles and plans, and ensuring that all safety and environmental programs are effectively followed and updated. While the SHyMA Technician does not directly quantify emissions, their role in maintaining and updating environmental risk matrices and monitoring environmental aspects ensures that all potential environmental impacts are accounted for. This indirectly supports the accurate quantification of project emissions by ensuring that all operations are conducted in an environmentally sound manner, reducing the risk of unanticipated emissions. The SHyMA Technician is responsible for auditing the implementation of applicable safety, hygiene, and environmental standards, reporting KPIs, incidents, and other relevant updates for each assigned site. This auditing function ensures that all safety and environmental practices meet the required quality standards, thus supporting the overall quality assurance of the project. Additionally, this role involves interpreting and updating legal and other requirements related to SHyMA, ensuring continuous compliance with all applicable laws and regulations. The SHyMA Technician collaborates with the park manager and plant personnel to report accidents and incidents, determining causes and proposing preventive and/or corrective actions. This role also involves attending inspections by various control agencies related to SHyMA and maintaining updated records of risk and environmental aspects matrices, which are crucial for verifying that all field data are accurate and compliant with safety and environmental regulations. The SHyMA Technician is responsible for documenting and communicating all SHyMA-related issues, ensuring that relevant information is accurately processed and shared with the appropriate stakeholders. This includes updating and maintaining SHyMA records and ensuring that all personnel are informed of and adhere to safety and environmental protocols.

	This role involves maintaining updated risk and environmental aspect matrices and preparing and maintaining records associated with the SIG. The SHyMA Technician also documents any recommendations for the cessation of activities and records the outcomes of emergency response actions. All these activities contribute to a robust data recording and archiving system, ensuring that all SHyMA-related data is accurately recorded and accessible for future reference.
Monitoring Coordinators	The Monitoring Coordinators supervise the monitoring process and are in charge of compiling the monitoring data in an excel spreadsheet and calculating the emission reductions of each monitoring period. They are also in charge of developing the monitoring reports in accordance with the BCR rules.

Table 55: Details of organizational structure outlining the roles and responsibilities of each team member responsible within the monitoring plan for the proper implementation and execution of the Monitoring, Reporting, and Verification (MRV) of project activities.

16.2 Data and parameters determined at registration and not monitored during the quantification period, including default values and factors

Data / Parameter	**$EF_{grid,OM,y}$**
Data unit	tCO_2/MWh
Description	Operating Margin emission factor
Source of data used	Argentine Secretariat of Energy[Y]
Value(s)	0.447 (*ex-ante* calculation; data vintage: 2021-2023)
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Calculation of baseline emissions
Justification of choice of data or description of measurement methods and procedures applied	*Ex-ante* Simple Operating Margin option of Step 3 of the TOOL07 v7.0 has been chosen using last available data for the period 2021-2023 provided by the Argentine Secretariat of Energy from information collected by CAMMESA.
Additional Comments	This emission factor will be kept fixed for the first quantification period. For the subsequent quantification periods, this factor will be updated based on the most recent three historical years for which data is available at the time of submission of the request for renewal of the quantification period to the CAB and BCR technical committee.

[Y] Calculation of *ex-ante* simple OMs for each of the three years in the data vintage (2021, 2022, and 2023) is available in the "4 a) Simple OM 2007-2023" and "Resumen Factores" tabs of the spreadsheet "Emission Factors Calculation.xlsx" provided in Annex 05. This data was obtained from the latest dataset available at the time of validation:http://datos.energia.gob.ar/dataset/calculo-del-factor-de-emision-de-co2-de-la-red-argentina-de-energia-electrica?_gl=1*r48hgi*_gcl_au*MjEwNTEwMDE2Ni4xNzIyODczMzA2 reported by the Argentine Secretariat of Energy. $EF_{grid,OMsimple,2021-2023}$ is obtained as the generation-weighted average for these three years as shown in "4 a) Simple OM 2007-2023" tab of the spreadsheet "Emission Factors Calculation.xlsx" provided in Annex 05.

Data / Parameter	$EF_{grid,BM,y}$
Data unit	tCO_2/MWh
Description	Build Margin emission factor
Source of data used	Argentine Secretariat of Energy[Z]
Value(s)	0.086 (*ex-ante* calculation; data vintage: 2023)
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Calculation of baseline emissions
Justification of choice of data or description of measurement methods and procedures applied	Option 1 of Step 5 of the TOOL07 v7.0 has been chosen using last available data (year 2023) provided by the Argentine Secretariat of Energy from information collected by CAMMESA.
Additional Comments	This emission factor will be kept fixed for the first quantification period. For the subsequent quantification periods, this factor will be updated based on the most recent information available at the time of submission of the request for renewal of the quantification period to the CAB and BCR technical committee.

Data / Parameter	$EF_{grid,CM,y}$
Data unit	tCO_2/MWh
Description	Combined Margin emission factor
Source of data used	Calculated using OM and BM and following TOOL07 (see section 3.7.3)
Value(s)	0.357 (*ex-ante* calculation; data vintage: 2023)
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Calculation of baseline emissions
Justification of choice of data or description of measurement methods and procedures applied	Option a of Step 6 of the TOOL07 v7.0 has been chosen using previously calculated OM and BM emission factors, following paragraphs 81(a), 83 and 86(a).
Additional Comments	This emission factor will remain fixed for the first quantification period. For the subsequent quantification periods, it will be updated based on the new values for both the Operating Margin and Build Margin emission factors.

[Z] The sample group of power units m used to calculate the BM, and all details of its calculation are available in the "5 Margen de Construcción 2023" and "Resumen Factores" tabs of the spreadsheet "Emission Factors Calculation.xlsx" provided in Annex 05, and data was obtained from the latest dataset of the "Calculation of the CO_2 Emission Factor of the Argentine Electric Power Grid" from the Argentine Secretariat of Energy (see footnote Y above).

16.3 Data and parameters monitored

Estimation of GHG emission removals or reductions

Data / Parameter	**$EG_{PJ,y}$**
Data unit	MWh/year
Description	Net electricity generated in the year y
Measured / Calculated / Default	Measured
Source of data	SMEC records
Value(s) applied	**PSSU:** 173,153 MWh/year **PSTO III:** 141,169 MWh/year (per year average for Instance 01; estimated *ex-ante*) See file "Baseline Emissions Calculations.xlsx" available in Annex 05.
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Calculation of baseline emissions. This parameter will be also used as an indicator of SDG 7 (7.2.1) and SDG 13 (13.2.1),
Monitoring Frequency	Continuous measurement and at least monthly recording. Typically, the measured data is read once every 24 hours using tele-metering technology (remotely).
Measuring / Reading / Recording frequency	High-precision metering panels are installed in each solar park's switchgear building. These panels include both primary meter/s and redundant meter/s, which are connected to transformers in the metering cell. The meters are of precision class 0.2s/0.5r and are equipped with certified tariff discriminators, built-in recorders, communication modems, and protection equipment.
Measurement/Calculation method (if applicable)	Direct measurement with the SMEC (electricity meters installed at the switchgear building of each solar park, see Figure 16), and data is collected by CAMMESA.
QA/QC Procedures to be applied	The verification of the meters will be done as established by the national authorities (CAMMESA)[AA]. In this regard, the generation values will be obtained from public reports issued by CAMMESA, as the measurements recorded by the SMEC are collected by CAMMESA and published on its website on a monthly basis. The setup of the metering panels allows accurate measurement, recording, and remote or local data download by CAMMESA, ensuring precise and reliable monitoring of energy generation for emission reduction verification. Since CAMMESA is the national electricity wholesale market management company, it is not necessary to cross-check these generation values. All data collected as part of the monitoring process is archived electronically and kept at least for two years after the end of the last quantification period.

[AA] CAMMESA establishes measurement quality audits to ensure the accuracy of data used in economic transactions among MEM agents and the reliability of records collected by the SMEC. As the responsible party, CAMMESA conducts equipment tests and verifications either directly or through third-party contracts. A field audit system is in place to monitor MEM agents' actions at their SMEC measurement points, verify compliance with current standards, and ensure the quality of the recorded information. These verifications are performed on a random basis, and until a verification is completed, CAMMESA continues to consider the meter as verified. Detailed information on this process is available on CAMMESA's dedicated website.

Climate change adaptation

Data / Parameter	Number of floodings
Data unit	-
Description	Tracks the occurrence of floodings during solar parks lifetime.
Measured / Calculated / Default	N/A.
Source of data	On-site inspections and records.
Value(s) applied	# of floodings reported.
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to assess the effectiveness, during solar parks lifetime, of drainage planning and soil movement control during construction.
Monitoring Frequency	Regularly during all stages of each solar park, especially after significant weather events.
Measuring / Reading / Recording frequency	Regularly during all stages of each solar park, especially after significant weather events.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Control Center Team members (CECO, see Table 55) do on-site visual inspections and review of weather and construction logs. Verified by cross-referencing weather data and construction logs. Flooding records should reflect any adverse weather conditions that occurred during the period.

Data / Parameter	Abandonment phase report on water runoff
Data unit	N/A (qualitative assessment).
Description	Summarizes the effectiveness of measures taken to prevent water accumulation and runoff during the abandonment phase.
Measured / Calculated / Default	N/A (qualitative assessment).
Source of data	Project closure documentation.
Value(s) applied	NA (qualitative assessment).
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to confirm that water runoff issues were managed appropriately during the abandonment phase.
Monitoring Frequency	Once, at the completion of the abandonment phase.
Measuring / Reading / Recording frequency	Once, at the completion of the abandonment phase.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Control Center Team members (CECO, see Table 55) review site conditions post-abandonment and comparison with baseline conditions. Ensure that any runoff or water accumulation issues are noted and compared to baseline conditions. Final report should be reviewed and approved by senior environmental officers.

Data / Parameter	Report on operational suspensions due to weather
Data unit	N/A (qualitative assessment).
Description	Documents instances where operations were suspended due to weather conditions and the impact on personnel, equipment, or the environment.
Measured / Calculated / Default	N/A (qualitative assessment).
Source of data	Site logs and safety reports.
Value(s) applied	N/A (qualitative assessment).
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to evaluate the effectiveness of weather-related safety protocols in protecting personnel and the environment.
Monitoring Frequency	Continuous, with reports generated after each suspension event.
Measuring / Reading / Recording frequency	Continuous, with reports generated after each suspension event.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Reports should be verified by safety officers and correlated with weather data. The report should include recommendations for improving weather-related operational safety protocols. Control Center Team members (CECO, see Table 55) review suspension logs and weather reports.

Data / Parameter	SHyMA meeting attendance and minutes
Data unit	-
Description	Tracks attendance and content of weekly meetings to address safety, health, and environmental risks.
Measured / Calculated / Default	N/A.
Source of data	Meeting minutes and attendance records.
Value(s) applied	# of meetings held.
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to ensure regular stakeholder engagement in safety and environmental risk management.
Monitoring Frequency	At least weekly during the project activities.
Measuring / Reading / Recording frequency	At least weekly during the project activities.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Attendance should be cross-checked against planned meetings and any deviations explained. Meeting content should align with planned safety and environmental topics. Control Center Team members (CECO, see Table 55) collect attendance records and meeting minutes.

Data / Parameter	Emergency drill reports
Data unit	-
Description	Records the completion of yearly emergency drills focused on extreme weather events.
Measured / Calculated / Default	N/A.
Source of data	Drill reports and attendance records.
Value(s) applied	# of drills conducted.
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to ensure preparedness for extreme weather events through regular emergency drills.
Monitoring Frequency	Annually.
Measuring / Reading / Recording frequency	Annually.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Drill effectiveness should be evaluated, and any deficiencies addressed in future drills. Ensure drills simulate realistic scenarios and involve all relevant stakeholders. Control Center Team members (CECO, see Table 55) collect drill reports and participant feedback.

SDSs and SDGs

Data / Parameter	Attendance of online training sessions
Data unit	-
Description	Tracks the number of individuals from the local community who participated in the "Energizate" Program training sessions.
Measured / Calculated / Default	N/A.
Source of data	Attendance records from training sessions.
Value(s) applied	# of participants.
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to assess community engagement and the reach of training programs implemented. This parameter will be also used as an indicator of SDG 13 (13.3.1 and 13.3.2).
Monitoring Frequency	After each training session.
Measuring / Reading / Recording frequency	After each training session.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Collect attendance data from each training session. Attendance records should be accurately maintained and stored for future reference.

Data / Parameter	Internships provided to regional school students
Data unit	N/A (qualitative assessment).
Description	Monitors the internships offered to students from regional schools under the Professional Internships program.
Measured / Calculated / Default	N/A (qualitative assessment).
Source of data	Internship records.
Value(s) applied	N/A (qualitative assessment).
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to measure the involvement of local students in renewable energy projects. This parameter will be also used as an indicator of SDG 13 (13.3.2).
Monitoring Frequency	Annually, or per internship cycle.
Measuring / Reading / Recording frequency	Annually, or per internship cycle.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Document the internship offers and verify with each institution.

Data / Parameter	Residues reused and repurposed locally
Data unit	N/A (qualitative assessment).
Description	Tracks if waste material was reused and repurposed locally as part of Circular Economy Courses.
Measured / Calculated / Default	N/A (qualitative assessment).
Source of data	Waste management logs, recycling records.
Value(s) applied	N/A (qualitative assessment).
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to measure the effectiveness of the Circular Economy Courses in reducing waste and provide evidence of the implemented courses. This parameter will be also used as an indicator of SDG 12 (12.5.1) and SDG 13 (13.3.1 and 13.3.2).
Monitoring Frequency	Periodically, based on waste collection and repurposing cycles.
Measuring / Reading / Recording frequency	Periodically, based on waste collection and repurposing cycles.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Collect and analyze waste management and recycling data.

Data / Parameter	Employment Records
Data unit	N/A (qualitative assessment).
Description	Employment in the construction, operation, and maintenance of solar parks
Measured / Calculated / Default	N/A (qualitative assessment).

Source of data	Employment Records
Value(s) applied	N/A (qualitative assessment).
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. The project creates jobs in the renewable energy sector; therefore, this parameter will be used as an indicator of SDG 8 (8.2.1).
Monitoring Frequency	Continuous throughout all phases of solar parks.
Measuring / Reading / Recording frequency	Continuous throughout all phases of solar parks.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Review of employment records from the project

Data / Parameter	**Land affected by environmental liabilities**
Data unit	Hectares (ha)
Description	Tracks the extent of land impacted by environmental liabilities, such as spills, leaks, or improper hazardous waste storage, prior to dismantling activities.
Measured / Calculated / Default	N/A.
Source of data	Assessment reports from pre-dismantling inspections.
Value(s) applied	Ha of land affected by environmental liabilities.
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. The goal is to ensure that any environmental liabilities are identified and addressed before the abandonment phase. This parameter will be used as an indicator of an environment SDS.
Monitoring Frequency	Prior to the start of the abandonment phase.
Measuring / Reading / Recording frequency	Prior to the start of the abandonment phase.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Any identified liabilities should be promptly addressed before proceeding with dismantling activities.

Data / Parameter	**Restored soil in the project area**
Data unit	Hectares (ha)
Description	Monitors the extent of soil restoration activities after the dismantling of project installations, ensuring the land is returned to its pre-construction state.
Measured / Calculated / Default	N/A.
Source of data	Post-dismantling restoration reports.
Value(s) applied	Ha of restored soil.

Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. The goal is to verify that the soil in the project area is restored to its natural productive conditions following the dismantling phase. This parameter will be used as an indicator of an environment SDS and SDG 15 (15.3.1).
Monitoring Frequency	After dismantling and restoration activities are completed.
Measuring / Reading / Recording frequency	After dismantling and restoration activities are completed.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Document and verify the completion of restoration tasks, including filling, landscaping, and scarification. The restoration should aim for long-term sustainability and recovery of natural vegetation cover. Verify the effectiveness of restoration by comparing pre- and post-intervention soil conditions.

Data / Parameter	**Response to Hazardous Waste Spill**
Data unit	-
Description	Procedures for containing and remediating hazardous waste spills, including the collection of contaminated materials and disposal at a certified Hazardous Waste Facility. This includes the use of spill kits with absorbent powder, diatomaceous earth, and a plastic shovel for the collection and safe disposal of affected soil.
Measured / Calculated / Default	N/A.
Source of data	Incident reports and records of waste transfer to the Hazardous Waste Facility.
Value(s) applied	# of spills recorded with a detailed report as supporting documentation.
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to ensure proper containment, remediation, and disposal of hazardous waste spills. This parameter will be used as an indicator of an environment SDS and SDG 12 (12.5.1).
Monitoring Frequency	As spills occur.
Measuring / Reading / Recording frequency	As spills occur.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Verify proper documentation and disposal of contaminated material as per company procedures and environmental regulations. Document spills, collect contaminated material using a spill kit, and transport to the Hazardous Waste Facility.

Data / Parameter	**Bacteriological and Physicochemical Quality of Water for Human Consumption**
Data unit	Bacteriological Parameters: Presence/Absence (e.g., Coliforms, Escherichia coli), CFU/ml (e.g., Pseudomonas aeruginosa, Mesophilic bacteria)

	Physicochemical Parameters: Various (e.g., mg/L for metals, NTU for turbidity, etc.)
Description	Monitoring the bacteriological and physicochemical quality of water in designated areas to ensure compliance with national standards and safe consumption during project activities.
Measured / Calculated / Default	Measured
Source of data	Laboratory analysis following Standard Methods (e.g., SM 9221 B, SM 4500 H-B).
Value(s) applied	Bacteriological Parameters: Coliforms: Absence/100 ml Escherichia coli: Absence/100 ml Pseudomonas aeruginosa: Absence/100 ml Mesophilic bacteria: ≤500 CFU/ml Physicochemical Parameters: Values as per national guidelines (e.g., pH: 6.5–8.5, Turbidity: ≤3 NTU).
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to ensure that water used in the project complies with national water quality standards to protect human health. This parameter will be used as an indicator of an environmental SDS.
Monitoring Frequency	Semiannual monitoring for bacteriological parameters; annual monitoring for physicochemical parameters.
Measuring / Reading / Recording frequency	Semiannual monitoring for bacteriological parameters; annual monitoring for physicochemical parameters.
Measurement/Calculation method (if applicable)	Laboratory analysis following Standard Methods (e.g., SM 9221 B, SM 4500 H-B).
QA/QC Procedures to be applied	Follow standard laboratory QA/QC procedures to ensure data reliability, including duplicate analysis, use of control samples, and calibration of equipment. The results will be compared against national standards for water quality as per Law N° 19.587 and its Regulatory Decree N° 351/79 – Annex I, Article 58. Sampling and analysis conducted according to Standard Methods and national regulations.

Data / Parameter	**Recycled material**
Data unit	Tons (tn)
Description	Measures the amount of material recycled from project-related activities during the abandonment phase.
Measured / Calculated / Default	N/A.
Source of data	Recycling records.
Value(s) applied	Tn of recycled material
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to promote recycling and reduce waste during the project lifecycle, particularly during the abandonment phase. This parameter will be used as an indicator of an environment SDS and SDG 12 (12.5.1).
Monitoring Frequency	Annually or during abandonment.
Measuring / Reading / Recording frequency	Annually or during abandonment.

Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Track and record the amount of material sent for recycling. Ensure accurate tracking and reporting of recycled materials.

Data / Parameter	**Report of mitigation measures for bird incidents**
Data unit	N/A (qualitative assessment).
Description	Tracks the incidents of bird strikes against construction elements, monitoring the effectiveness of mitigation measures.
Measured / Calculated / Default	N/A (qualitative assessment).
Source of data	Incident reports.
Value(s) applied	N/A (qualitative assessment).
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to reduce and monitor the impact of the project on bird populations. This parameter will be used as an indicator of an environment SDS.
Monitoring Frequency	Regular monitoring, frequency may increase during peak migration periods.
Measuring / Reading / Recording frequency	Regular monitoring, frequency may increase during peak migration periods.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Document and report any bird strikes observed within the project area. Investigate and adapt mitigation measures if bird strikes exceed acceptable levels.

Data / Parameter	**Traffic and Road Safety Hazards**
Data unit	-
Description	Monitoring traffic flow and road safety hazards during project activities, particularly during construction phases.
Measured / Calculated / Default	N/A.
Source of data	On-site traffic monitoring, incident reports.
Value(s) applied	# of traffic incidents within the project areas.
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to manage and minimize the impact of project-related traffic on local infrastructure and road safety. This parameter will be used as an indicator of an environmental and a social SDS..
Monitoring Frequency	Throughout the construction phase and during major maintenance activities.
Measuring / Reading / Recording frequency	Throughout the construction phase and during major maintenance activities.
Measurement/Calculation method (if applicable)	N/A.

QA/QC Procedures to be applied	On-site observations and regular data collection from traffic authorities. Incident reports will be reviewed and analyzed to identify patterns and implement corrective actions. A comprehensive contingency plan will be in place to manage traffic and road safety risks, including emergency response procedures.

Data / Parameter	**Wildlife and Habitat Impacts during Construction and Abandonment Phases**
Data unit	N/A (qualitative assessment).
Description	Assessment of wildlife and habitat impacts during the construction and abandonment phases, focusing on habitat reduction, noise disturbances, and waste management.
Measured / Calculated / Default	N/A (qualitative assessment).
Source of data	Environmental Impact Assessments (EIAs), wildlife studies, construction site observations, and the company's environmental procedures.
Value(s) applied	N/A (qualitative assessment).
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to minimize the adverse effects of project activities on local wildlife and habitats. This parameter will be used as an indicator of an environmental SDS.
Monitoring Frequency	Continuous throughout the construction and abandonment phases.
Measuring / Reading / Recording frequency	Continuous throughout the construction and abandonment phases.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	On-site observations and environmental impact assessments conducted by trained personnel. Environmental monitoring will include regular reviews and adjustments to mitigation measures as necessary. Adaptive management strategies will be employed to ensure the protection and enhancement of local ecosystems during the project lifecycle.

Data / Parameter	**PM10 (Respirable Thoracic Particulate Matter)**
Data unit	mg/m^3
Description	Monitoring PM10 concentrations at specified locations during construction and operation activities to assess potential health impacts.
Measured / Calculated / Default	Measured
Source of data	Results of analysis of the samples obtained *in situ*.
Value(s) applied	0.03 mg/m^3 (Limit of Quantification)
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to ensure that PM10 levels do not exceed regulatory guidelines and to mitigate any potential health risks to workers and nearby communities. This parameter will be used as an indicator of an environmental SDS.

Monitoring Frequency	Once at the 50% mark of the construction stage at three perimeter locations of the park, and after that, semiannual sampling at five locations in work sectors.
Measuring / Reading / Recording frequency	Once at the 50% mark of the construction stage at three perimeter locations of the park, and after that, semiannual sampling at five locations in work sectors.
Measurement/Calculation method (if applicable)	Air sampling using appropriate methods, with analysis conducted following the specified NIOSH and EPA guidelines.
QA/QC Procedures to be applied	Calibration of sampling equipment and adherence to standard operating procedures to ensure data accuracy. Air sampling devices and analytical tools compliant with NIOSH 600 and EPA 40 CFR Part 50. Monitoring results will be compared against regulatory guidelines: 3 mg/m^3 (Decree 351/79 - Socioeconomic) and 0.050 mg/m^3 (WHO Air Quality Guidelines - Air Quality).

Data / Parameter	**Community Mental Health and Well-being**
Data unit	-
Description	Monitoring the community's mental health and well-being during project activities by tracking complaints and concerns related to stress, anxiety, and social isolation.
Measured / Calculated / Default	N/A.
Source of data	Communication logs, complaint records, and monitoring reports managed according to the company's third-party communication procedure.
Value(s) applied	# of Complaints/Concerns associated with mental health and well-being received .
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	This indicator is not used for baseline/project/leakage emission calculations. This indicator is used to address and mitigate potential negative impacts on community well-being during the project lifecycle. This parameter will be used as an indicator of a social SDS.
Monitoring Frequency	Continuous monitoring throughout the project's construction phase.
Measuring / Reading / Recording frequency	Continuous monitoring throughout the project's construction phase.
Measurement/Calculation method (if applicable)	N/A.
QA/QC Procedures to be applied	Collection of complaints and concerns through designated communication channels (phone and email). Regular review of complaint logs and prompt response to community concerns. A proactive communication strategy will be implemented to keep the community informed about project activities and provide them with a platform to voice concerns.

NOTE: This Project Document (PD) shall be completed following the instructions included. However, it is important to highlight that these instructions are complementary to the BCR STANDARD, and the Methodology applied by the project holder, in which more information on each section can be found.